

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/> <b>PLUG BACK</b> <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. <b>N-50412</b>
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME <b>N/A</b>
2. NAME OF OPERATOR <b>Wintershall Oil &amp; Gas Corp. c/o Permitco 303/595-4051</b>		7. UNIT AGREEMENT NAME <b>N/A</b>
3. ADDRESS OF OPERATOR <b>1020 15th Street, Suite 22E, Denver, CO 80202</b>		8. FARM OR LEASE NAME <b>Federal</b>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface <b>1420' FSL &amp; 1230' FWL</b> At proposed prod. zone <b>NW SW</b>		9. WELL NO. <b>#8-13</b>
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* <b>5.5 miles Southwest of Blanding, Utah</b>		10. FIELD AND POOL, OR WILDCAT <input checked="" type="checkbox"/> <b>Wildcat</b>
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) <b>90</b>	16. NO. OF ACRES IN LEASE <b>3,260.31</b>	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>Sec. 8, T37S-R22E</b>
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. <b>None</b>	19. PROPOSED DEPTH <b>6600'</b> <i>skel</i>	12. COUNTY OR PARISH <b>San Juan</b>
21. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>5811' GR</b>		13. STATE <b>Utah</b>
22. APPROX. DATE WORK WILL START* <b>Immediately upon approval</b>		

## 23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	36#	2398'	1075 sxs - circ to surface
7 7/8"	5 1/2"	15.5#	6600'	450 sxs - or sufficient to cover zones of interest

Wintershall Oil & Gas Corp. proposes to drill a well to test the Desert Creek formation. If productive, casing will be run & the well completed. If dry the well will be plugged & abandoned as per BLM & State of Utah requirements.

See Onshore Order No. 1 attached

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

DATE: 11/20/84  
BY: [Signature]

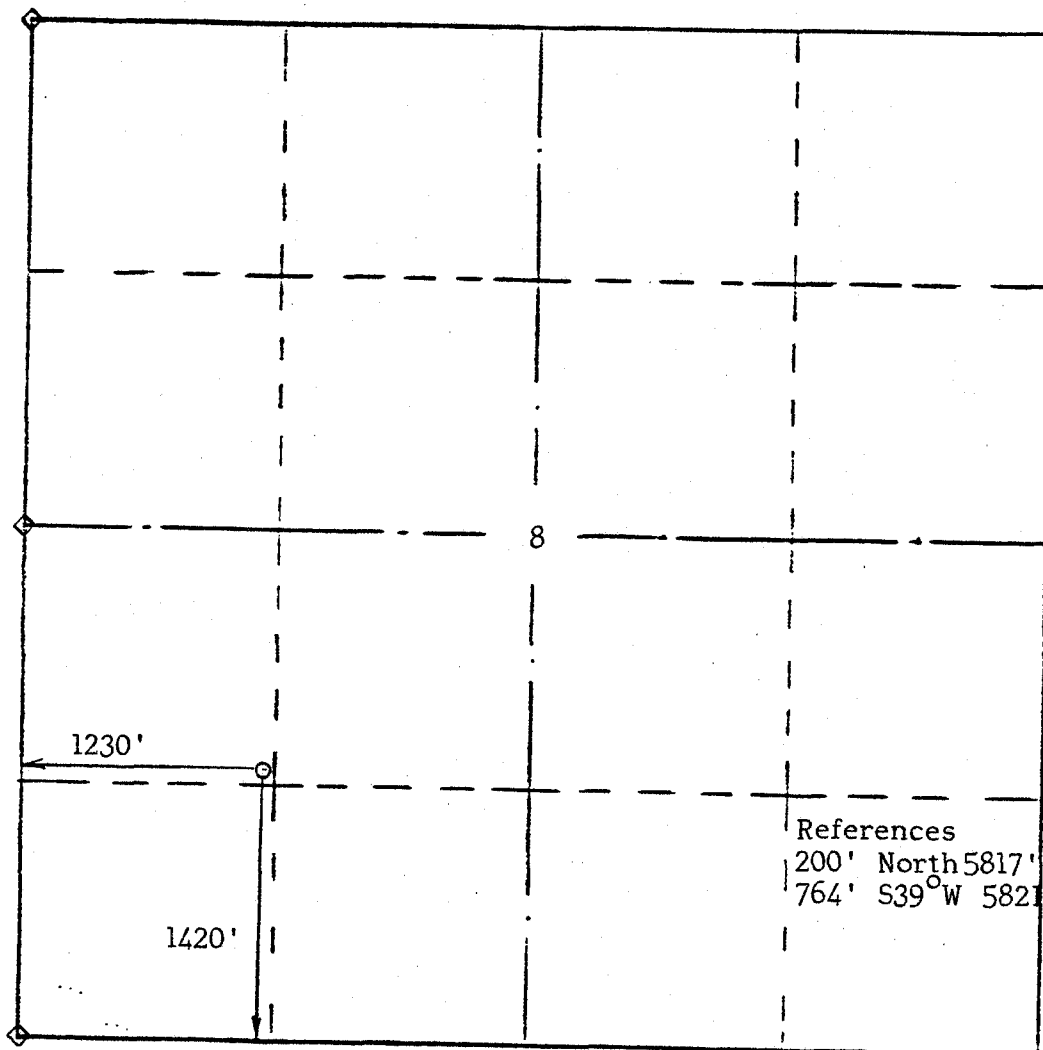
IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED [Signature] TITLE Consultant for Wintershall Oil & Gas Corp. DATE 11/7/84  
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

## WELL LOCATION AND ACREAGE DEDICATION PLAT



Operator Wintershall O & G		Well name 8-13 Federal	
Section 8	Township 37 South	Range 22 East	Meridian SLM
Footages 1420' FS & 1230' FW		County/State San Juan, Utah	Elevation 5811
Formation	Dedicated Acreage	Requested by Lisa Green	
<p>The above plat is true and correct to the best of my knowledge and belief.</p> <p>October 26, 1984</p> <p>Gerald G. HINDOLSON, S.</p> <p>REGISTERED LAND SURVEYOR No. 5705 STATE OF UTAH</p>			

5675 DTC Boulevard, Suite 200  
Englewood, Colorado 80111 U.S.A.

**Wintershall**  
**Oil and Gas Corporation**  
Englewood, Colorado

Bureau of Land Management

RE: Federal #8-13  
Federal #27-43  
San Juan County, Utah

*Not Received 11/9/84  
mailed 11/9/84*

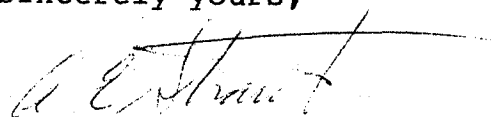
Gentlemen:

This letter is to inform you that Permitco is authorized to act as Agent and to sign documents on behalf of Wintershall Oil and Gas Corporation when necessary for filing county, state, and federal permits including Onshore Order No. 1, R-O-W applications, etc.; for the above-mentioned well.

It should be understood that Permitco is acting as Agent only in those matters stated above and is not responsible for drilling, completion, production, or compliance with regulations.

Wintershall Oil and Gas Corporation agrees to accept full responsibility for operations conducted in order to drill, complete, and produce the above-mentioned well.

Sincerely yours,



A. E. Straub  
Vice President - Production

AES:ram

**STATE OF UTAH**  
**DEPARTMENT OF NATURAL RESOURCES**  
**DIVISION OF OIL, GAS, AND MINING**

(Other instructions on  
reverse side)

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

1a. Type of Work DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. Lease Designation and Serial No. U-50412
b. Type of Well Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone <input type="checkbox"/>		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator Wintershall Oil & Gas Corp. c/o Permitco      303/595-4051		7. Unit Agreement Name N/A
3. Address of Operator 1020 15th Street, Suite 22E, Denver, CO 80202		8. Farm or Lease Name Federal
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1420' FSL & 1230' FWL At proposed prod. zone		9. Well No. #8-13
14. Distance in miles and direction from nearest town or post office* 5.5 miles Southwest of Blanding, Utah		10. Field and Pool, or Wildcat Wildcat
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any) 90'	16. No. of acres in lease 3,260.31	11. Sec., T., R., M., or Blk. and Survey or Area Sec. 8, T37S-R22E
18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft. None	19. Proposed depth 6600'	12. County or Parrish San Juan
21. Elevations (Show whether DF, RT, GR, etc.) 5811' GR	20. Rotary or cable tools Rotary	13. State Utah
23. PROPOSED CASING AND CEMENTING PROGRAM		22. Approx. date work will start* Immediately upon approval

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12 1/4"	9 5/8"	36#	2398'	1075 sxs - circ to surface
7 7/8"	5 1/2"	15.5#	6660'	450 sxs - or sufficient to cover zones of interest.

Wintershall Oil & Gas Corp. proposes to drill a well to 6500' to test the Desert Creek formation. If productive, casing will be run and the well completed. If dry the well will be plugged & abandoned as per BLM & State of Utah requirements.

See Onshore Order No. 1 attached

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. Signed *Dana L. Greer* Consultant for Wintershall Oil & Gas Corp. Date 11/7/84  
 (This space for Federal or State office use)

Permit No. \_\_\_\_\_ Approval Date \_\_\_\_\_

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
 Conditions of approval, if any:

ONSHORE OIL & GAS ORDER NO. 1

Approval of Operations on Onshore  
Federal and Indian Oil and Gas Leases

Federal #8-13  
1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

Prepared For:

WINTERSHALL OIL & GAS CORP.

By:

PERMITCO  
1020-15th Street, Suite 22E  
Denver, Colorado 80202

Copies Sent To:

- 4 - BLM - Moab, Utah
- 1 - BLM - Monticello, Utah
- 1 - Division of Oil Gas & Mining - SLC, Utah
- 5 - Wintershall Oil & Gas Corp - Denver, CO

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**Permitco**

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A Petroleum Permitting Company

# Permitco

A Petroleum Permitting Company

November 7, 1984

State of Utah  
Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Re: Wintershall Oil & Gas Corp.  
Federal #8-13  
1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

Gentlemen:

Wintershall Oil & Gas Corp. proposes to drill a well at the above mentioned location.

We realize that this location is a non-standard location in accordance with the spacing rules of the State of Utah. This location was picked due to topography and extensive seismic work which was done in the immediate area.

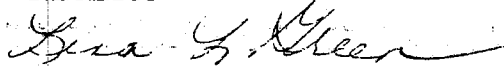
Wintershall Oil & Gas Corp. is the lease holder of the following:

T37S - R22E: Sec. 7: All

Therefore, no other lease holders will be affected by the drilling of the above proposed well. We, therefore, request your permission to drill this well at a non-standard location.

Sincerely,

PERMITCO



Lisa L. Green  
Consultant for  
Wintershall Oil and Gas Corp.

cc: Wintershall Oil & Gas Corp.

# Permitco

A Petroleum Permitting Company

November 7, 1984

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Division of Oil, Gas & Mining  
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1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
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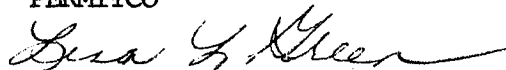
Sec 8:  $\frac{W}{2}$   $\frac{E}{2}$   
SE SE

*per Lisa Green  
Permitted  
11/19/84*

Therefore, no other lease holders will be affected by the drilling of the above proposed well. We, therefore, request your permission to drill this well at a non-standard location.

Sincerely,

PERMITCO



Lisa L. Green  
Consultant for  
Wintershall Oil and Gas Corp.

cc: Wintershall Oil & Gas Corp.

ONSHORE ORDER NO.  
Wintershall Oil & Gas Corp.  
Federal 8-13  
1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1  
Approval of Operations on Onshore  
Federal and Indian Oil and Gas Leases

1. The surface formation and estimated formation tops to be encountered are as follows:

<u>Formation</u>	<u>Depth</u>	<u>Subsea</u>
Morrison	Surface	
Navajo	1658'	+4153'
Chinle	2348'	+3463'
Cutler/DeChelly	3408'	+2403'
Honaker Trail	5201'	+ 610'
Upper Ismay	6111'	- 300'
Lower Ismay	6258'	- 447'
Desert Creek	6326'	- 515'
Akah	6458'	- 647'
T.D.	6600'	

2. The estimated depths at which oil, gas, water or other mineral bearing zones are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Anticipated Depth</u>
Oil/Gas	Upper Ismay	6111'
Oil/Gas	Lower Ismay	6258'
Oil/Gas	Desert Creek	6326'

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth cased and cemented. All oil and gas shows will be tested to determine commercial potential.

3. Pressure control equipment will consist of a 10", 3000# BOP. (See BOP Diagram attached.)

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**Permitco**

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A Petroleum Permitting Company



ONSHORE ORDER NO.  
Wintershall Oil & Gas Corp.  
Federal 8-13  
1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

DRILLING PROGRAM

Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

4. a. Casing

The proposed casing program is as follows:

<u>Purpose</u>	<u>Depth</u>	<u>Hole Size</u>	<u>O.D.</u>	<u>Wt.</u>	<u>Grade</u>	<u>Type</u>	<u>New or Used</u>
Surface	0-2398'	12-1/4"	9-5/8"	36#	J-55	ST&C	New
Produc.	0-6600'	7-7/8"	5-1/2"	15.5#	J-55	ST&C	New

b. Cement

The cementing program will be as follows:

<u>Surface</u>	<u>Type and Amount</u>
0-2398'	875 sx Lite, Tail in with 200 sx Class B (neat). Cement will be circulated to surface.

<u>Production</u>	<u>Type and Amount</u>
T.D. - 5000'	250 sx low water loss Class "B" Cement
2700-3200'	200 sx low water loss Class "B" Cement

c. Auxiliary Equipment will be as follows:

1. Kelly cock.
2. Float above the bit.

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**Permitco**

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A Petroleum Permitting Company

ONSHORE ORDER NO.  
Wintershall Oil & Gas Corp.  
Federal 8-13  
1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

DRILLING PROGRAM

c. Auxillary Equipment (cont.)

3. A sub with a full opening valve will be on the floor when the kelly is not in use.
4. Monitoring of the system will be done visually.
5. Drilling fluid will be as follows:

<u>Interval</u>	<u>Mud Type</u>	<u>Mud Wt.</u>	<u>Visc.</u>	<u>F/L</u>	<u>PH</u>
0-1650'	Gel Water	8.7-8.8	30	N/C	N/C
1650-5000'	Gel Chemical	9.0-9.5	40	10	10+
5000-T.D.	Gel Chemical	10-14	40-45	8-10	10+

6. Coring, logging and testing programs are as follows:

- a. One 60' core will be run in the Upper Ismay.
- b. The logging program will consist of a DIL SFL, GR SP; BHC Sonic GR Caliper from Surface to T.D. and a CHL Litho Density GR Caliper and Dipmeter and Velocity Survey from 4000' to T.D.
- c. Drill stem tests will be run in the Upper Ismay and Desert Creek at drilling breaks or shows.

Whether the well is completed as a dry hole or as a producer, "Well Completion or Recompletion Report and Log" (Form 3160-4) will be submitted not later than 15 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analysis, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the District Manager.

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**Permitco**

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A Petroleum Permitting Company

ONSHORE ORDER NO  
Wintershall Oil & Gas Corp.  
Federal 8-13  
1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

DRILLING PROGRAM

7. Abnormal conditions, bottom hole pressures and potential hazards.
  - a. The maximum bottom hole pressure to be expected is 3500 psi.
  - b. Wintershall Oil & Gas Corp. plans to spud the Federal #8-13 on November 15, 1984 and intends to complete the well within approximately one month after the well has reached T.D.
  - c. The operator will contact the San Juan Resource Area at 801/587-2201, 48 hours prior to beginning any dirt work on this location.
  - d. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the District Manager. If operations are to be suspended, prior approval of the District Manager will be obtained and notification given before resumption of operations.
  - e. The spud date will be reported orally to the San Juan Area Manager, a minimum of 24 hours before spudding. A Sundry Notice (Form 3160-5) will be sent within 24 hours of spudding, reporting the spud date and time. The Sundry will be sent to the District Manager.
  - f. In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 9-329 "Monthly Report of Operations", starting with the month in which operations begin and continue each month until the well is physically plugged and abandoned. This report will be sent to the Moab BLM District Office, P. O. Box 970, Moab, Utah 84532.
  - g. If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the District Manager. All conditions of this approved plan are applicable during all operations conducted with the replacement rig.

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**Permitco**

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A Petroleum Permitting Company

ONSHORE ORDER NO.  
Wintershall Oil & Gas Corp.  
Federal 8-13  
1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

DRILLING PROGRAM

- h. If the well is successfully completed for production, then the District Manager will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, no later than the first business day following the date on which the well is placed on production.
- i. No well abandonment operations will begin without the prior approval of the District Manager. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Manager. A "Subsequent Report of Abandonment" (Form 3160-5), will be filed with the District Manager, within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration.
- j. Final abandonment will not be approved until surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the San Juan Area Manager or his representative, or the appropriate Surface Managing Agency.
- k. A first production conference will be scheduled within 15 days after receipt of the first production notice. The operator will schedule the conference with the San Juan Area Manager.

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**Permitco**

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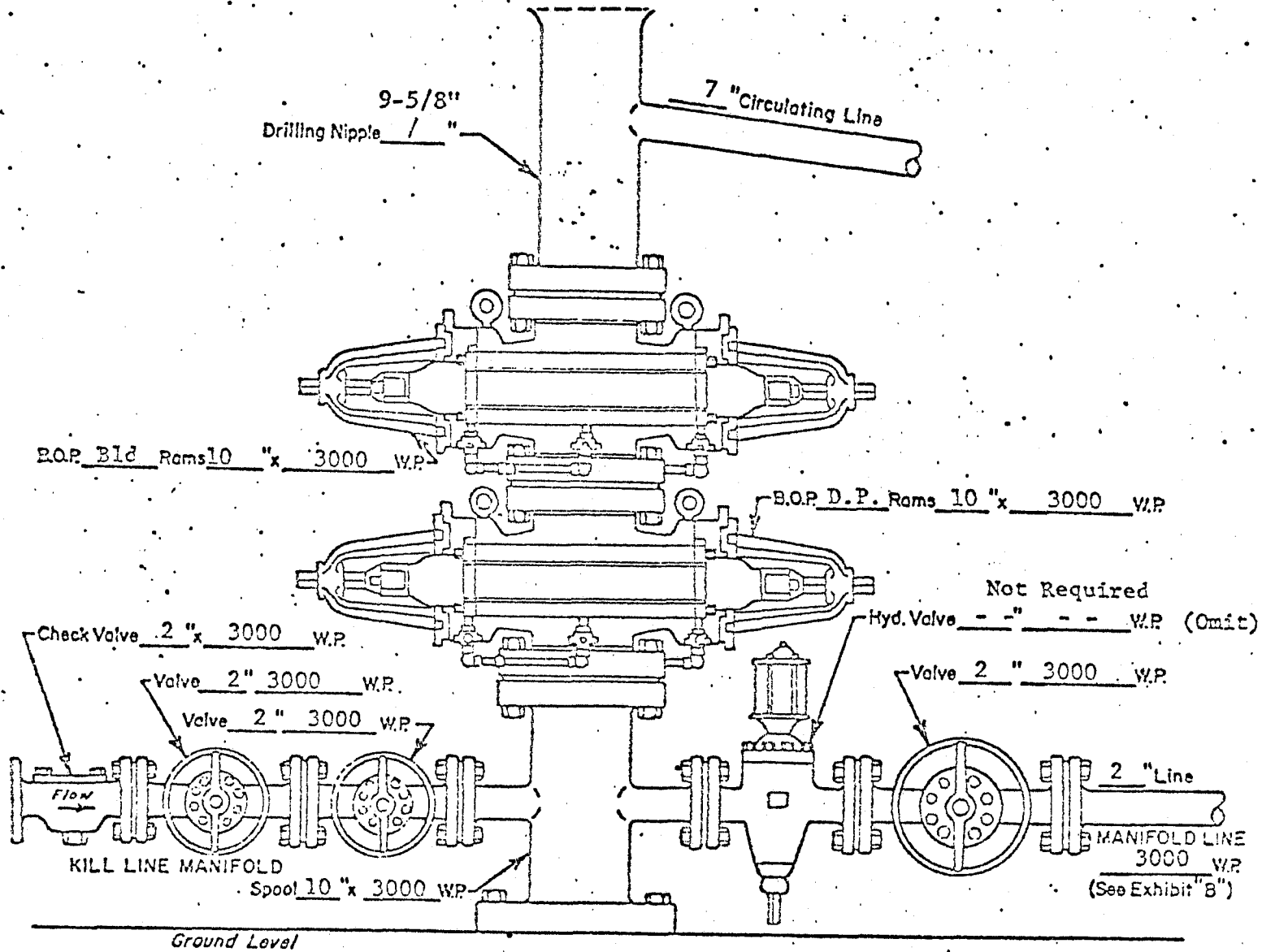
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A Petroleum Permitting Company

COLEMAN DRILLING CO.

WELL NAME: \_\_\_\_\_

LOCATION : \_\_\_\_\_



WELL HEAD B.O.P.

3000 W.P.

☒ Hydraulic

ONSHORE OIL & GAS ORDER NO. 1  
Wintershall Oil & Gas Corp.  
Federal 8-13  
1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

SURFACE USE PLAN

ONSHORE OIL & GAS ORDER NO. 1

Thirteen Point Surface Use Plan

1. Existing Roads

- a. The proposed well site is located 5.5 miles from Blanding, Utah.
- b. Directions to the location from Blanding are as follows:  
Go south on Highway 47 for 3 miles. Turn west at Shirt Tail Corners and proceed on Highway 95 for 2.5 miles. Turn north on existing road and go 1/4 miles to gravel pit entrance. Turn left on to new access (flagged) and proceed approximately 700 feet to the location.
- c. For location of access roads within a 2-Mile radius, see Map #1.
- d. Improvement to the existing access will not be necessary and will be limited to the total existing disturbed width.
- e. All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.
- f. An encroachment permit will be obtained from the San Juan County Road Department, 801/587-2231, ext. 43.

2. Planned Access Roads

- a. The road will initially be flatbladed during drilling operations and will be 20-22 feet wide. The maximum total disturbed width will be 30 feet.
- b. The maximum grade will be 5%.
- c. No turnouts are planned.
- d. The access road was centerline flagged at the time of staking.

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**Permitco**

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ONSHORE OIL & GAS ORDER NO. 1  
Wintershall Oil & Gas Corp.  
Federal 8-13  
1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

SURFACE USE PLAN

2. Planned Access Roads (cont.)

- e. Drainage will be installed as deemed necessary by the dirt contractor.
- f. No gates, cattleguards or fence cuts will be necessary.
- g. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.
- h. The access road will be water barred or brought to Class III Road Standards within 60 days of dismantling of the drilling rig. If this time frame cannot be met, the San Juan Area Manager will be notified so that temporary drainage control can be installed along the access road.
- i. No culverts will be necessary.
- l. Surfacing material will not be placed on the access road or location without prior BLM approval.

3. Location of Existing Wells Within a 1-Mile Radius of the Proposed Location. (See Map #2).

- a. Water Wells - none
- b. Injection or disposal wells - none
- c. Producing Wells - none
- d. Drilling Wells - none

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1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

SURFACE USE PLAN

4. Location of Tank Batteries and Production Facilities.

- a. All permanent structures (onsite for six months or longer) constructed or installed (including oil well pump jacks) will be painted a flat, nonreflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain Five-State Interagency Committee. All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The color will be neutral to blend in with the environment.
- b. If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1-1/2 times the storage capacity of the battery.
- c. Tank batteries will be placed as shown on Diagram #1.
- d. All loading lines will be placed inside the berm surrounding the tank battery.
- e. Any necessary pits will be properly fenced to prevent any wildlife entry. The production pit will be flagged overhead.
- f. All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.
- g. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the District Manager.
- h. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.
- i. Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.

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**Permitco**

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Federal 8-13  
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Sec. 8, T37S - R22E  
San Juan County, Utah

SURFACE USE PLAN

4. Location of Tank Batteries and Production Facilities (cont.)

- j. The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The San Juan Area Manager will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Moab District Office. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

5. Location and Type of Water Supply

- a. All water needed for drilling purposes will be obtained from Fred Halliday which is located in the SW/4 SE/4 Sec. 22, T37S - R22E or from Clyde Watkins in the C S/2 Sec. 1, T37S - R22E. Directions to the water sources are shown on Map #1.
- b. Water will be trucked to location over the roads marked on Map #1.
- c. No water well is to be drilled on this lease.
- d. Use of water for this operation will be approved by obtaining a temporary use permit from the Utah State Engineer, 801/637-1303, and by receiving permission from the land owner of surface management agency to use the land containing the water source.

6. Source of Construction Material

- a. Road surfacing and pad construction material will be obtained from a commercial source.
- b. The use of materials under BLM jurisdiction will conform with 43 CFR 3610.2.3. Construction material will not be located on lease.

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**Permitco**

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San Juan County, Utah

SURFACE USE PLAN

7. Methods of Handling Waste Disposal

- a. The reserve pit will be lined with commercial bentonite sufficient to prevent seepage at the discretion of the dirt contractor. At least half of the capacity will be in cut.
- b. Three sides of the reserve pit will be fenced with four strands of barbed wire before drilling starts. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.
- c. A trash pit will be constructed near the mud tanks and dug at least six feet into solid, undisturbed material. It will be totally enclosed with a fine wire mesh before the rig moves in. The road and pad will be kept litter free.
- d. A burning permit is required for burning trash between May 1 and October 31. A burn permit will be requested if drilling is to occur during these dates.
- e. Produced waste water will be confined to a unlined pit for a period not to exceed 90 days after initial production. During the 90-day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the District Manager's approval. Failure to file an application within the time allowed will be considered an incident of noncompliance, and will be grounds for issuing a shut-in order.

8. Ancillary Facilities

- a. There are no airstrips, camps, or other facilities planned during the drilling of the proposed well.

9. Well Site Layout

- a. See Diagram #2 for rig layout. See Diagram #3 for cross section of drill pad. See Diagram #4 for cuts and fills.

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**Permitco**

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A Petroleum Permitting Company

ONSHORE OIL & GAS ORDER NO. 1  
Wintershall Oil & Gas Corp.  
Federal 8-13  
1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

SURFACE USE PLAN

9. Well Site Layout (cont.)

- b. The location of mud tanks; reserve, burn and trash pits; pipe racks; living facilities and soil stockpiles will be shown on Diagrams #2 & #4. The location will be laid out and constructed as discussed during the predrill conference.
- c. The top 4 inches of soil material will be removed from the location and stockpiled separate from the trees on the northwest side. Topsoil along the access will be reserved in place.
- d. Access to the well pad will be from the southwest.

10. Reclamation

- a. Immediately upon completion of drilling, all trash and debris will be collected from the location and surrounding area. All trash and debris will be disposed of in the trash pit and will then be compacted and buried under a minimum of two feet of compacted soil.
- b. The operator or his contractor will contact the San Juan Resource Area office in Monticello, Utah (801/587-2201) 48 hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.
- c. Before any dirt work to restore the location takes place, the reserve pit must be completely dry.
- d. All disturbed areas will be recontoured to blend as nearly as possible with the natural topography. This includes removing all berms and refilling all cuts.
- e. The stockpiled topsoil will be spread evenly over the disturbed area. All disturbed areas will be ripped 6 inches deep with the contour.

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**Permitco**

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A Petroleum Permitting Company

ONSHORE OIL & GAS ORDER NO. 1  
Wintershall Oil & Gas Corp.  
Federal 8-13  
1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

SURFACE USE PLAN

10. Plans for Reclamation of Surface (cont.)

- f. Water bars will be built as follows to control erosion.

<u>Grade</u>	<u>Spacing</u>
2%	Every 200 Feet
2-4%	Every 100 Feet
4-5%	Every 75 Feet
5+%	Every 50 Feet

- g. Seed will be broadcast between October 1 and February 28 with the following prescription. A harrow or similar implement will be dragged over the area to assure seed cover.

2 lbs/acre Indian Ricegrass (*Oryzopsis Hymehoides*)  
2 lbs/acre Western Wheatgrass (*Agropyron Smithii*)  
1 lbs/acre Cliffrose (*Cowania Mexicana*)  
1/2 lb/acre Yellow Sweetclover

- h. After seeding is complete, the stockpiled trees will be scattered evenly over the disturbed areas. The access will be blocked to prevent vehicular access.
- i. The reserve pit and that portion of the location and access road not needed for production and production facilities will be reclaimed as described in the reclamation section. Enough topsoil will be kept to reclaim the remainder of the location at a future date. This remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.

11. a. Surface Ownership

Federal

b. Mineral Ownership

Federal

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**Permitco**

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A Petroleum Permitting Company

ONSHORE OIL & GAS ORDER NO. 1  
Wintershall Oil & Gas Corp.  
Federal 8-13

1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

SURFACE USE PLAN

12. Other Information

- a. There will be no change from the proposed drilling and/or workover program without prior approval from the District Manager. Safe drilling and operating practices must be used. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.2.
- b. "Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.
- c. The dirt contractor will be provided with an approved copy of the surface use plan.
- d. If subsurface cultural materials are exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All people who are in the area will be informed by the operator that they are subject to prosecution for disturbing archeological sites or picking up artifacts. Salvage or excavation of identified archeological sites will be done by a BLM approved archeologist only if damage occurs.
- e. This permit will be valid for a period of one year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.
- f. An archeological study was performed by LaPlata Archaeological Consultants. No significant cultural resources were found and clearance is recommended. This report will be submitted directly by LaPlata Archaeological Consultants.
- g. A Right-of-Way Grant will be necessary on approximately 1/8 mile existing access which is located in the NW NW Sec. 17, T37S - R22E. Enclosed is a check in the amount of \$70.00 to cover filing fees for this Right-of-Way.
- h. Your contact with the District Office is:  
Bob Graff  
P.O. Box 970  
Moab, Utah 84532  
(801/259-6111)

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**Permitco**

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A Petroleum Permitting Company

ONSHORE OIL & GAS ORDER NO. 1  
Wintershall Oil & Gas Corp.  
Federal 8-13  
1420' FSL and 1230' FWL  
Sec. 8, T37S - R22E  
San Juan County, Utah

SURFACE USE PLAN

12. Other Information (cont.)

- i. Resource Area Manager's address and contacts:  
Rich McClure  
P.O. Box 7  
Monticello, UT 84535  
(801/587-2201)

13. Lessee's or Operator's Representative and Certification

Permit Matters

Permitco  
Lisa L. Green  
1020-15th Street  
Suite 22-E  
Denver, Co. 80202  
303/595-4051

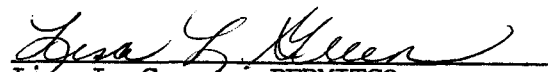
Drilling & Completion Matters

Wintershall Oil & Gas Corp.  
David Howell  
5675 DTC Blvd.  
Suite 200  
Englewood, CO 80111  
303/694-0988 (W)  
303/423-1025 (H)

Certification

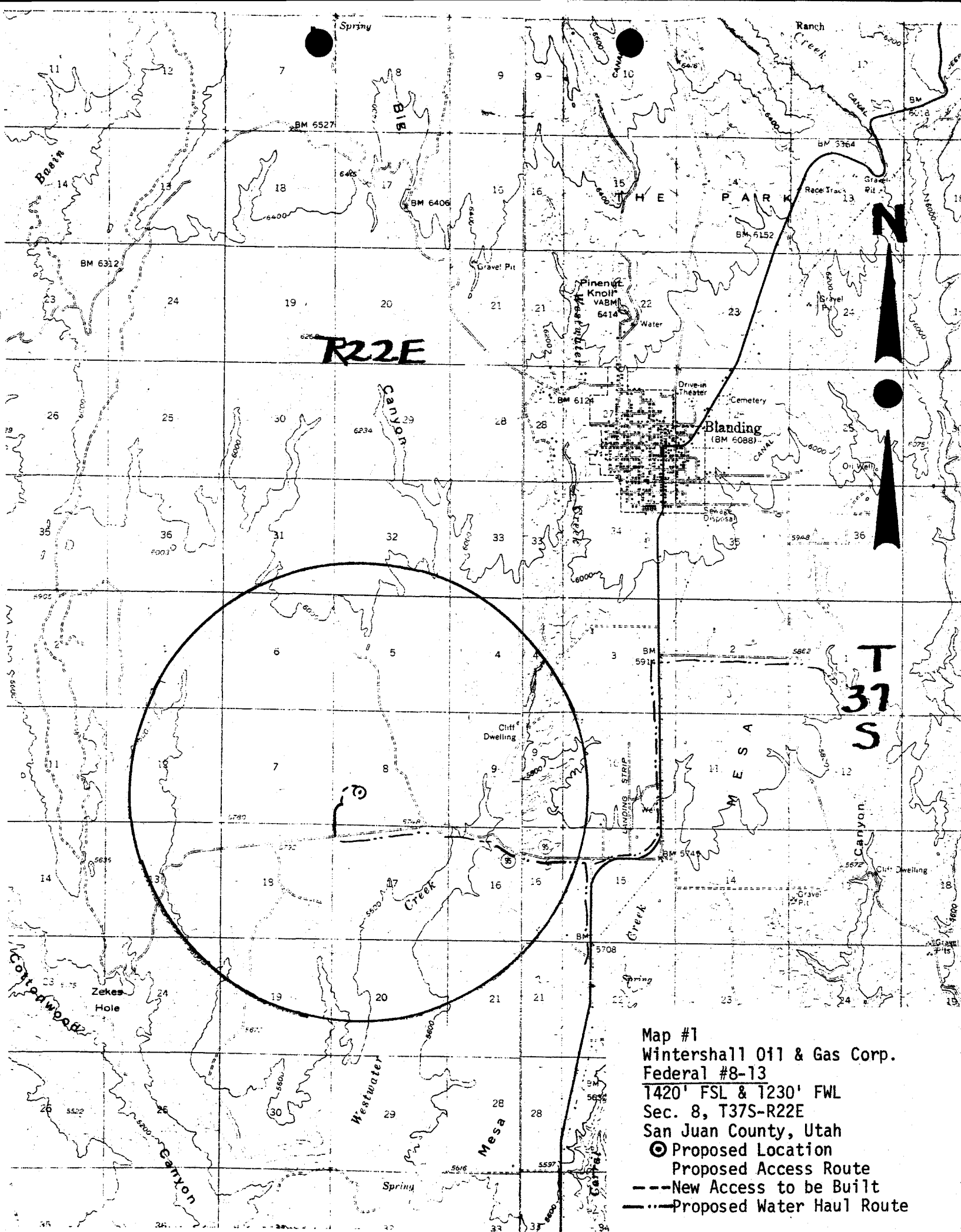
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Wintershall Oil & Gas Corp. and its contractors and subcontractors in conformity with the plan and the terms and conditions under which it is approved.

November 7, 1984  
Date: \_\_\_\_\_

  
Lisa L. Green - PERMITCO  
Authorized Agent for:  
WINTERSHALL OIL & GAS CORP.

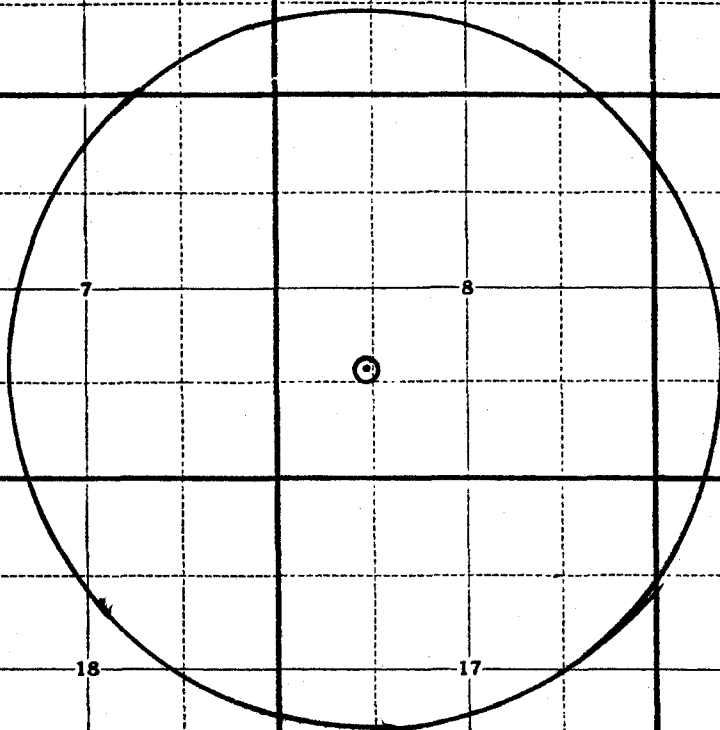
**Permitco**

A Petroleum Permitting Company



R22E

N



T  
37  
S

Map #2  
Wintershall Oil & Gas Corp.  
Federal #8-13  
T420' FSL & T230' FWL  
Sec. 8, T37S-R22E  
San Juan County, Utah  
⊙ Proposed Location



Scale: 1" = 50'

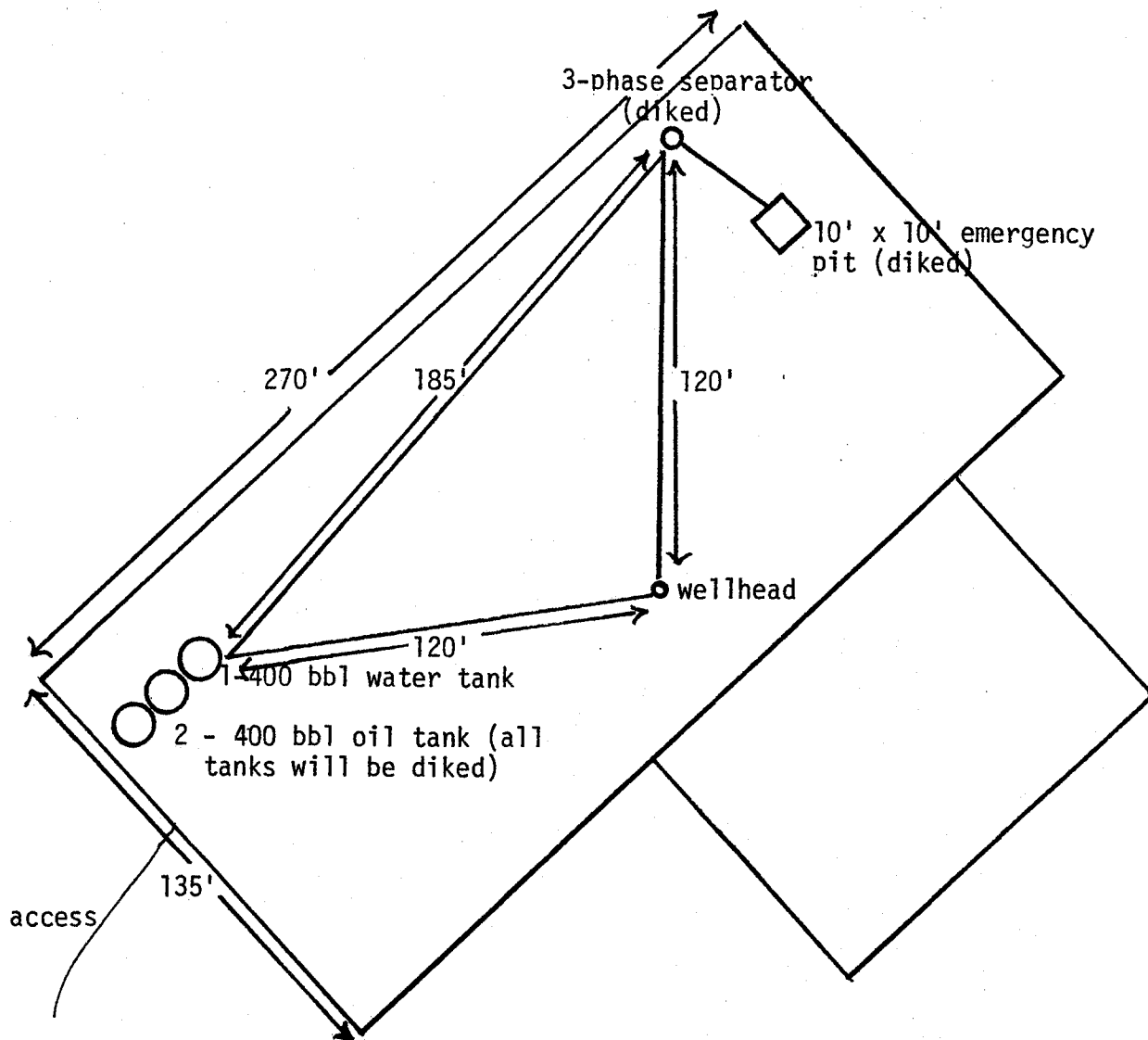


Diagram #1  
Production Facility Layout  
Wintershall Oil & Gas Corp.  
Federal #8-13  
T420' FSL & T230' FWL  
Sec. 8, T37S-R22E  
San Juan County, Utah

Scale: 1" = 50'

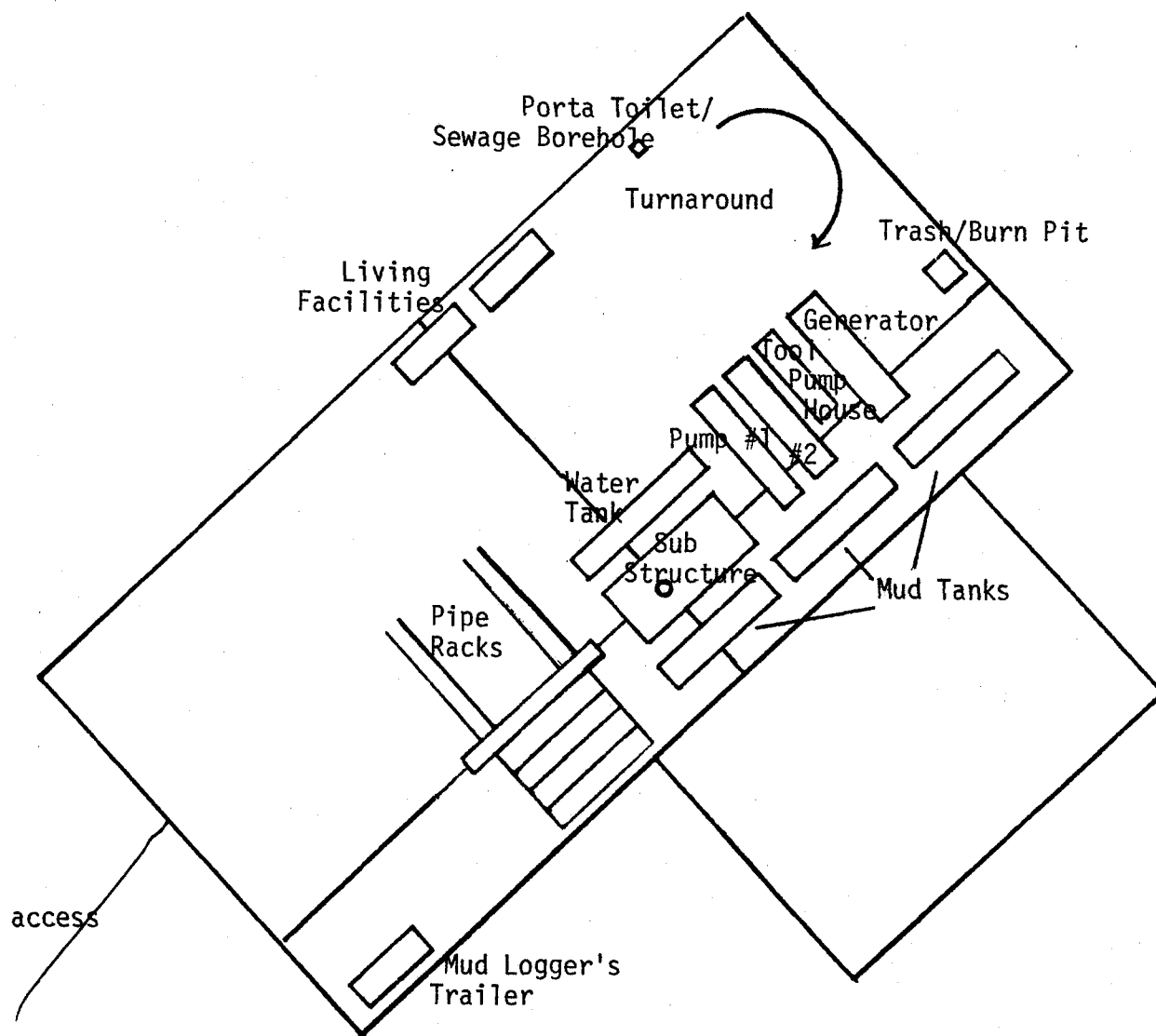


Diagram #2  
Wellpad Layout  
Wintershall Oil & Gas Corp.  
Federal #8-13  
1420' FSL & 1230' FWL  
Sec. 8, T37S-R22E  
San Juan County, Utah

Well \_\_\_\_\_

Scales: 1" = 60' H.      1.7 Vertical Exaggeration  
1"=30' V.

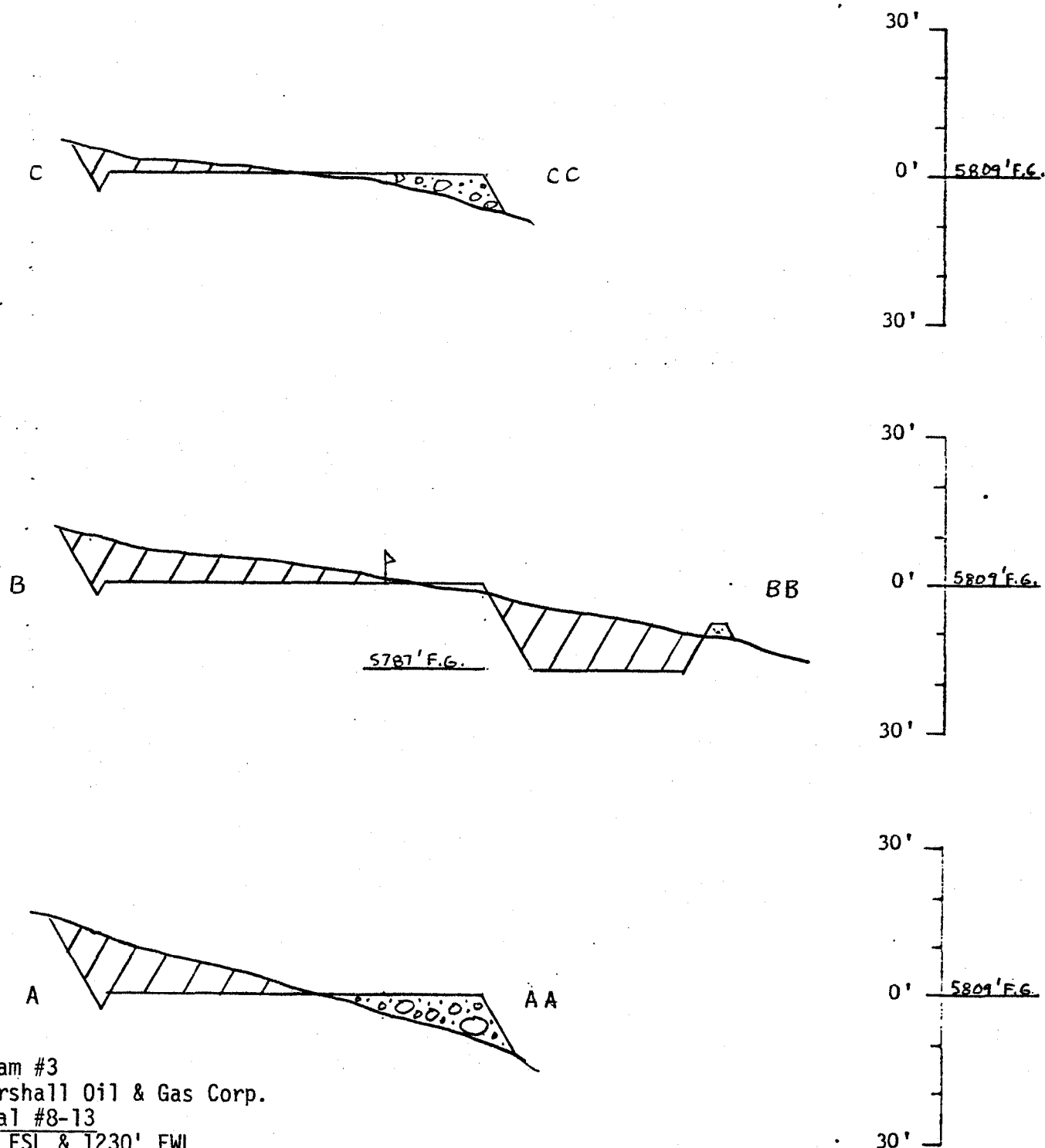


Diagram #3  
Wintershall Oil & Gas Corp.  
Federal #8-13  
1420' FSL & 1230' FWL  
Sec. 8, T37S-R22E  
San Juan County, Utah

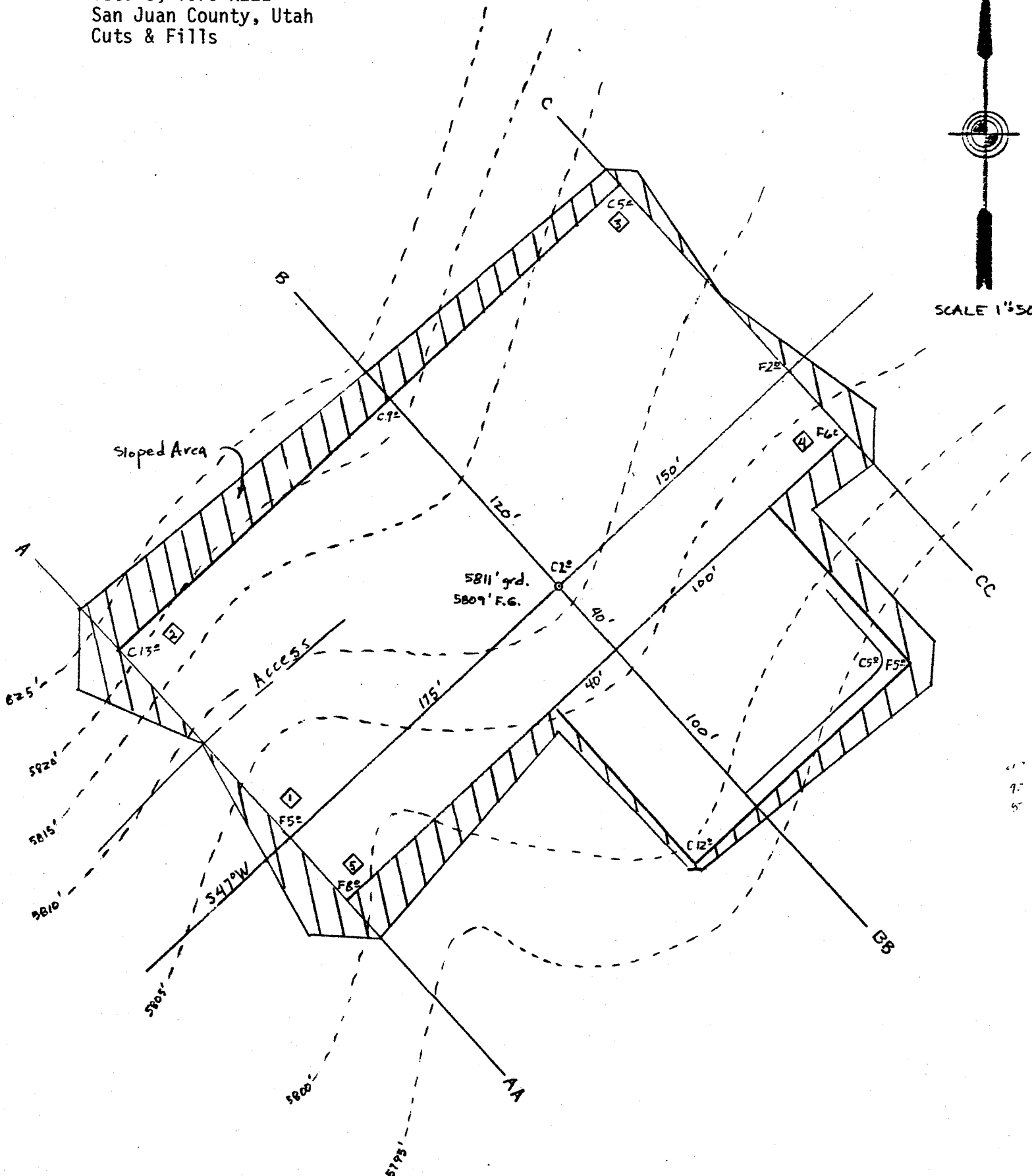
Diagram #4  
Wintershall Oil & Gas Corp.  
Federal #8-13  
1420' FSL & 1230' FWL  
Sec. 8, T37S-R22E  
San Juan County, Utah  
Cuts & Fills

WELL PAD PLAN VIEW

Well \_\_\_\_\_

N

SCALE 1"=50'



OPERATOR

Wintershall Oil & Gas Corp

DATE

11-9-84

WELL NAME

Fed. # 8-13

SEC

NWSW 8

T

37S

R

22E

COUNTY

San Juan43-037-31105

API NUMBER

Fed

TYPE OF LEASE

CHECK OFF:



PLAT



BOND



NEAREST WELL



LEASE



FIELD

POTASH OR  
OIL SHALE

PROCESSING COMMENTS:

No other wells within 1000' -Needs water permitException requested

APPROVAL LETTER:

SPACING:



A-3

UNIT



C-3-a

CAUSE NO. &amp; DATE



C-3-b



C-3-c

STIPULATIONS:

1 - Water2 - Exception for



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

November 20, 1984

Wintershall Oil & Gas Corporation  
c/o Permitco  
1020 15th Street, Suite 22E  
Denver, Colorado 80202

Gentlemen:

Re: Well No. Federal 8-13 - NWSW Sec. 8, T. 37S, R. 22E  
1420' FSL, 1230' FWL, San Juan County, Utah

Approval to drill the above referenced oil well is hereby granted in accordance with Rule C-3(c), General Rules and Regulations and Rules of Practice and Procedure, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water.

In addition, the following actions are necessary to fully comply with this approval:

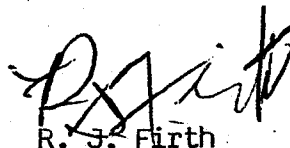
1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695 or R. J. Firth, Associate Director, (Home) 571-6068.
4. Compliance with the requirements and regulations of Rule C-27, Associated Gas Flaring, General Rules and Regulations, Oil and Gas Conservation.

Page 2  
Wintershall Oil & Gas  
Well No. Federal 8-13  
November 20, 1984

5. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31105.

Sincerely,



R. J. Firth  
Associate Director, Oil & Gas

gl  
Enclosures  
cc: Branch of Fluid Minerals

REC'D MDC "CV 9 1984

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/> <b>PLUG BACK</b> <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. <b>U-50412</b>	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A	
2. NAME OF OPERATOR <b>Wintershall Oil &amp; Gas Corp. c/o Permitco 303/595-4051</b>			7. UNIT AGREEMENT NAME N/A	
3. ADDRESS OF OPERATOR <b>1020 15th Street, Suite 22E, Denver, CO 80202</b>			8. FARM OR LEASE NAME <b>Federal</b>	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface <b>1420' FSL &amp; 1230' FWL</b> At proposed prod. zone			9. WELL NO. <b>#8-13</b>	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* <b>5.5 miles Southwest of Blanding, Utah</b>			10. FIELD AND POOL, OR WILDCAT <b>Wildcat</b>	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) <b>90</b>		16. NO. OF ACRES IN LEASE <b>3,260.31</b>		17. NO. OF ACRES ASSIGNED TO THIS WELL <b>40</b>
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. <b>None</b>		19. PROPOSED DEPTH <b>6600'</b>		20. ROTARY OR CABLE TOOLS <b>Rotary</b>
21. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>5811' GR</b>				22. APPROX. DATE WORK WILL START* <b>Immediately upon approval</b>

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	36#	2398'	1075 sxs - circ to surface
7 7/8"	5 1/2"	15.5#	6600'	450 sxs - or sufficient to cover zones of interest

Wintershall Oil & Gas Corp. proposes to drill a well to test the Desert Creek formation. If productive, casing will be run & the well completed. If dry the well will be plugged & abandoned as per BLM & State of Utah requirements.

See Onshore Order No. 1 attached

RECEIVED  
JAN 14 1985  
DIVISION OF  
OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED [Signature] TITLE Consultant for Wintershall Oil & Gas Corp. DATE 11/7/84  
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

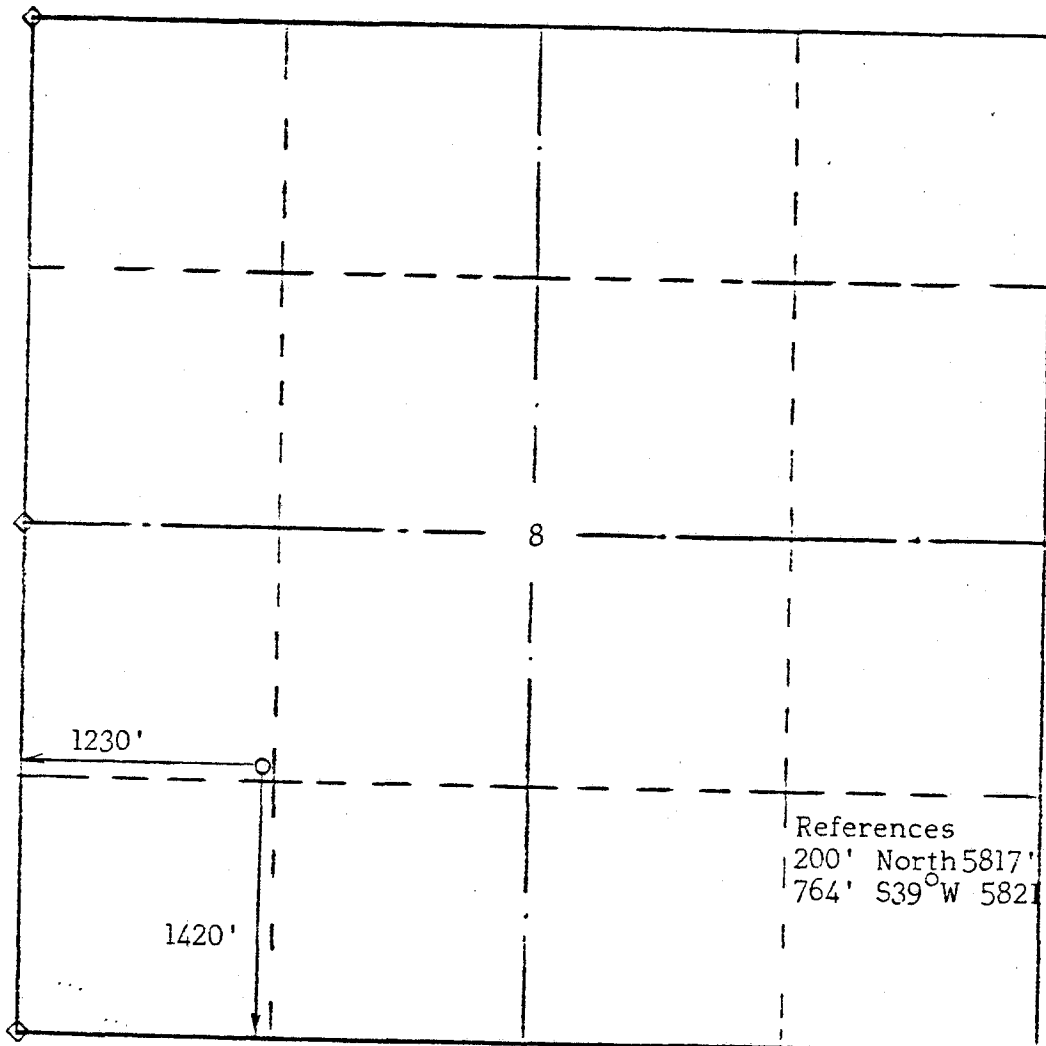
APPROVED BY /S/ GENE NODINE TITLE DISTRICT MANAGER DATE 0 8 JAN 1985  
CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_SUBJECT TO RIGHT OF WAY  
APPROVAL

NOTICE OF APPROVAL

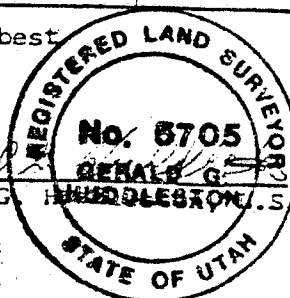
FLARING OR VENTING OF  
GAS IS SUBJECT OF NTL 4-A  
DATED 1/1/80



## WELL LOCATION AND ACREAGE DEDICATION PLAT



Operator Wintershall O & G		Well name 8-13 Federal	
Section 8	Township 37 South	Range 22 East	Meridian SLM
Footages 1420' FS & 1230' FW		County/State San Juan, Utah	Elevation 5811
Formation	Dedicated Acreage	Requested by Lisa Green	
<p>The above plat is true and correct to the best of my knowledge and belief.</p> <p>October 26, 1984</p> <p>Gerald G. HIDDLESTON, S.</p>			



## DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

API #43-037-31105

NAME OF COMPANY: Wintershall Oil & Gas CompanyWELL NAME: Federal #8-13SECTION NW SW 8 TOWNSHIP 37S RANGE 22E COUNTY San JuanDRILLING CONTRACTOR ColemanRIG # 3SPUDED: ☐ DATE 1-23-85TIME 2:30 PMHOW Rotary

DRILLING WILL COMMENCE \_\_\_\_\_

REPORTED BY Kim Lucks

TELEPHONE # \_\_\_\_\_

DATE 1-24-85 SIGNED RJF

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☒ well gas ☐ well other ☐
2. NAME OF OPERATOR  
Wintershall Oil & Gas Corporation
3. ADDRESS OF OPERATOR Englewood,  
5675 DTC Blvd., Ste. 200, Colorado 80111
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 1420' FSL to 1230' FWL  
AT TOP PROD. INTERVAL: same  
AT TOTAL DEPTH: same
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

## REQUEST FOR APPROVAL TO:

- TEST WATER SHUT-OFF ☐  
FRACTURE TREAT ☐  
SHOOT OR ACIDIZE ☐  
REPAIR WELL ☐  
PULL OR ALTER CASING ☐  
MULTIPLE COMPLETE ☐  
CHANGE ZONES ☐  
ABANDON\* ☐

## SUBSEQUENT REPORT OF:

- ☐  
☐  
☐  
☐  
☐  
☐  
☐  
☐

(other) well status

5. CASE  
U-50412
6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
NA
7. UNIT AGREEMENT NAME  
NA
8. FARM OR LEASE NAME  
Federal
9. WELL NO.  
8-13
10. FIELD OR WILDCAT NAME  
Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 8, T37S-R22E
12. COUNTY OR PARISH  
San Juan
13. STATE  
Utah
14. API NO.  
43-037-31105
15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5811' GR

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Well spudded 1-23-85 at 2:30 p.m.  
2 jts 13 3/8" casing set @ 90'KB w/110 sx cement. Circ  
cement to surface.

Present operations: Drilling ahead.

**RECEIVED**

JAN 28 1985

DIVISION OF OIL  
GAS & MINING

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Kim Lucks TITLE Operations Engineer DATE 1-24-85  
Kim Lucks

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

CC: Utah Oil, Gas, &amp; Mining Div.

# ORAL APPROVAL TO PLUG AND ABANDON WELL

Operator Wintershall O&G Representative Dave Howell

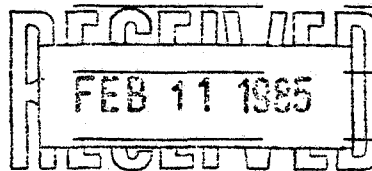
Well No. Fed B-13 Location 1/4 1/4 Section 8 Township 37S Range 22E

Lease No. U-50412 Field Undesignated State San Juan Co., VT

Unit Name and Required Depth NA Base of fresh water sands \_\_\_\_\_

T.D. 6509 Size hole and Fell per sack \_\_\_\_\_ Mud Weight and Top 9.2 #/gal. \_\_\_\_\_

Casing Size	Set At	Top of Cement	To Be Pulled	Plugging Requirements		
				From	To	Sacks Cement
<u>13 3/8</u>	<u>90</u>			<u>Surface</u>	<u>50 ft.</u>	
<u>9 5/8</u>	<u>2404</u>	<u>Surf.</u>	<u>-</u>	<u>2300</u>	<u>2500</u>	<u>as req'd</u>
Formation	Top	Base	Shows			
<u>Cutler</u>	<u>3364</u>					
<u>Honaker Tr.</u>	<u>5200</u>					
<u>Upper Tsmay</u>	<u>6134</u>					
<u>Lower Tsmay</u>	<u>6252</u>					
<u>Des. Creek</u>	<u>6314</u>			<u>6152</u>	<u>TD</u>	<u>as req'd</u>
<u>TD</u>		<u>6509</u>				



## REMARKS

DST's, lost circulation zones, water zones, etc., slight show in L. Tsmay

Approved by Bob Graff Date 2/5/85 Time 3:00 a.m. (p.m.)

Oper. ✓  
Well File  
MET

## CEMENTING SERVICE REPORT

DOWELL 496-N PRINTED IN U.S.A.

DOWELL DIVISION OF DOW CHEMICALS  
AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY

TREATMENT NUMBER

5-69-0987

DATE

2-5-85

PAGE

DOWELL DISTRICT

Caterpillar Co.

WELL NAME AND NO.

Federal 8-13

FIELD-POOL

Wildcat

COUNTY/PARISH

San Juan

LOCATION (LEGAL)

Sec 8-T375-R22E

FORMATION

STATE

UTAH

API. NO.

RIG NAME:

Coleman R. 3

WELL DATA:

BIT SIZE 7 7/8

TOTAL DEPTH

ROT CABLE

MUD TYPE

BHST

BHCT

MUD DENSITY 11.6

MUD VISC.

NOTE: Include Footage From Ground Level To Head In Disp. Capacity

DISP. CAPACITY

TYPE

DEPTH

TYPE

DEPTH

TYPE

DEPTH

HEAD &amp; PLUGS

TBG

D.P.

DOUBLE

SINGLE

SWAGE

KNOCKOFF

TOP OR W

BOT OR W

DEPTH 6509

ANNUAL VOLUME

Bbls

Bbls

Bbls

Bbls

Bbls

Bbls

Bbls

Bbls

Bbls

Bbls

Bbls

Bbls

Bbls

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Bbls

Bbls

Bbls

Bbls

Bbls

Bbls

Bbls

Bbls

PRESSURE LIMIT 1000

PSI

BUMP PLUG TO

PSI

ROTATE

RPM

RECIPROCATE

FT

No. of Centralizers

TIME

PRESSURE

VOLUME PUMPED BBL

JOB SCHEDULED FOR

ARRIVE ON LOCATION

LEFT LOCATION

0001 to 2400

TBG OR D.P.

CASING

INCREMENT

CUM

INJECT RATE

FLUID TYPE

FLUID DENSITY

TIME 2300 DATE 2-5-85

TIME 2300 DATE 2-5-85

TIME 1730 DATE 2-6-85

2300

0

-

10

-

3.5

H<sub>2</sub>O

-

PRE-JOB SAFETY MEETING- Rig up Equipment.

0135

0

10

-

3.5

H<sub>2</sub>O

-

Pump 10 Bbls H<sub>2</sub>O Ahead

0138

0

22

32

4

Cem

15.6

START mixing Cement

0145

0

3.4

35.4

3

H<sub>2</sub>O

-

Follow cem w/ 3.4 Bbls H<sub>2</sub>O

0146

0

-

4

-

mud

9.8

-

Displace w/mud

0205

-

75

110.4

-

-

-

-

Disp. Complete- Plugged - 6509-6152

0618

0

-

10

-

3

H<sub>2</sub>O

-

Pump H<sub>2</sub>O Ahead

0621

-

21

31

4

cem

15.6

-

Mix Cement

0627

-

2.4

33.4

3

H<sub>2</sub>O

-

-

mixed- START Displace Water

0628

-

-

4

ADA

mud

9.8

-

Disp w/mud

0634

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cem Displaced. Plug at 2504'-2304'

0930

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-

Pull Drill Pipe.

1043

-

10

-

3

H<sub>2</sub>O

-

-

Trip in to Tag Plug - Plug not There

1046

-

15

35

4

cem

15.6

-

Re-mix 2" plug - Drill Pipe at 2500'

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Pump water Ahead

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mix Cement.

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DWL-496-1 PRINTED IN U.S.A.

DATE \_\_\_\_\_

DATE 2-6-85

CUSTOMER WELL NAME AND NUMBER

Federal 8-13

LOCATION (LEGAL)

50-375-22E

**DOWELL LOCATION**

Carter Co.

TREATMENT NUMBER

1895

PAGE

OF 2

PAGES

[illegible]



TICKET NO. 71986600  
07-FEB-85  
FARMINGTON

RECEIVED

FEB 11 1985

DIVISION OF OIL  
GAS & MINING

# FORMATION TESTING SERVICE REPORT

WINTERSHALL FEDERAL		8-13		6296.1 - 6326.1		WINTERSHALL OIL AND GAS CORPORATION	
LEASE NAME		WELL NO.		TEST NO.		LEASE OWNER/COMPANY NAME	
LEGAL LOCATION SEC. - TWP. - RNG.		8-37N-22E		FIELD AREA		COUNTY	
				WILDCAT		SAN JUAN	
						STATE	
						UTAH	
						BG	

0409

B C D E F

G

H

A

H

1986-6040

GAUGE NO: 6040 DEPTH: 6275.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3020	3001.4			
B	INITIAL FIRST FLOW	14	15.4			
C	FINAL FIRST FLOW	14	14.1	15.0	15.0	F
C	INITIAL FIRST CLOSED-IN	14	14.1			
D	FINAL FIRST CLOSED-IN	14	14.1	33.0	33.0	C
E	INITIAL SECOND FLOW	14	14.1			
F	FINAL SECOND FLOW	14	14.1	60.0	60.0	F
F	INITIAL SECOND CLOSED-IN	14	14.1			
G	FINAL SECOND CLOSED-IN	14	18.9	60.0	60.0	C
H	FINAL HYDROSTATIC	3020	3004.2			



6639

B<sup>c</sup> 0
















G

119844 6039

GAUGE NO: 6039 DEPTH: 6323.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3030	3030.8			
B	INITIAL FIRST FLOW	27	40.9			
C	FINAL FIRST FLOW	27	34.2	15.0	15.0	F
C	INITIAL FIRST CLOSED-IN	27	34.2			
D	FINAL FIRST CLOSED-IN	40	42.7	33.0	33.0	C
E	INITIAL SECOND FLOW	27	42.7			
F	FINAL SECOND FLOW	27	35.2	60.0	60.0	F
F	INITIAL SECOND CLOSED-IN	27	35.2			
G	FINAL SECOND CLOSED-IN	40	47.0	60.0	60.0	C
H	FINAL HYDROSTATIC	3030	3032.2			

[illegible]

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	5421.0	
4		FLEX WEIGHT.....	4.500	2.764	119.0	
3		DRILL COLLARS.....	6.250	2.500	657.0	
50		IMPACT REVERSING SUB.....	6.000	3.000	1.0	6198.0
3		DRILL COLLARS.....	6.250	2.500	63.0	
5		CROSSOVER.....	6.000	3.000	1.0	
13		DUAL CIP SAMPLER.....	5.000	0.750	7.0	
60		HYDROSPRING TESTER.....	5.000	0.750	5.0	6273.0
80		AR RUNNING CASE.....	5.000	2.250	4.0	6275.0
15		JAR.....	5.000	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	3.0	
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	6290.0
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	6296.0
20		FLUSH JOINT ANCHOR.....	5.750	2.500	24.0	
81		BLANKED-OFF RUNNING CASE.....	5.750		4.0	6323.0
TOTAL DEPTH					6326.0	

EQUIPMENT DATA

## EQUIPMENT &amp; HOLE DATA

FORMATION TESTED: LOWER ISMAY

NET PAY (ft): 10.0

GROSS TESTED FOOTAGE: 30.0

ALL DEPTHS MEASURED FROM: KB

CASING PERFS. (ft):

HOLE OR CASING SIZE (in): 7.875

ELEVATION (ft): 5825

TOTAL DEPTH (ft): 6326.0

PACKER DEPTH(S) (ft): 6290. 6296

FINAL SURFACE CHOKE (in):

BOTTOM HOLE CHOKE (in): 0.750

MUD WEIGHT (lb/gal): 9.20

MUD VISCOSITY (sec): 38

ESTIMATED HOLE TEMP. (°F):

ACTUAL HOLE TEMP. (°F): 128 @ 6322.0 ft

TICKET NUMBER: 71986600

DATE: 2-2-85 TEST NO: 1

TYPE DST: OPEN HOLE

HALLIBURTON CAMP:  
FARMINGTON

TESTER: AULD

WITNESS: LOWRY

DRILLING CONTRACTOR:  
COLEMAN #3FLUID PROPERTIES FOR  
RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm

## SAMPLER DATA

Pstg AT SURFACE: 0

cu.ft. OF GAS: 0.00

cc OF OIL: 0

cc OF WATER: 0

cc OF MUD: 500

TOTAL LIQUID cc: 500

## HYDROCARBON PROPERTIES

OIL GRAVITY (°API): @ °F

GAS/OIL RATIO (cu.ft. per bbl):

GAS GRAVITY:

## CUSHION DATA

TYPE	AMOUNT	WEIGHT

## RECOVERED:

10' OF MUD

MEASURED FROM  
TESTER VALVE

## REMARKS:

IGT

RECEIVED

FEB 13 1984

DIVISION OF OIL  
GAS & MINING

WINTERSHALL OIL & GAS CORP.  
8-13 BRUSHY BASIN WASH  
SEC. 8, T37S-22E  
SAN JUAN COUNTY, UTAH

IGT  
INTERMOUNTAIN GEO-TECH, INC.  
P. O. BOX 158  
DELTA, CO 81416  
303-874-7762

WINTERSHALL OIL & GAS CORP.  
8-13 BRUSHY BASIN WASH  
SEC. 8, T37S-22E  
SAN JUAN COUNTY, UTAH

February 5, 1985

The Wintershall Brushy Basin Wash 8-13 Federal Well was spudded 1-23-85. Casing was set at 2404 ft. IGT Unit #1 was on location, rigged up and logging 1-28-85 at a depth of 4470 ft.

A bit trip was made 1-29-85 and drilling resumed averaging 600 ft. per day. Drilling continued rather smoothly with only a few minor freeze-up problems as the snow fell and the temperature continued to drop.

Another bit trip was made 1-31-85 just before the Upper Ismay formation was encountered. Drilling resumed 2-1-85 and the Upper Ismay was drilled with no drilling breaks or shows. The Lower Ismay formation was drilled, a drilling break and show was encountered so a trip was made in preparation for drill stem test #1.

Drill Stem Test #1 was run 2-2-85 with rather disappointing results. Drilling resumed the evening of 2-2-85 and continued until another drilling break and show was encountered in the Desert Creek formation early in the morning of 2-3-85. Drill Stem Test #2 was run 2-3-85 with much better results than the first test.

Drilling resumed 2-4-85 and the well was Td'd the same day. Schlumberger set up to run electric logs but encountered some hole problems and could not get their tools on bottom. Drill pipe was run back into the hole and the hole was reamed out and cleaned up and Schlumberger was able to complete their logs 2-5-85. A velocity survey was run immediately following. IGT Unit #1 was released 2-5-85.

Jan A. Johnson  
Geologist - IGT

WINTERSHALL OIL & GAS CORP.  
8-13 BRUSHY BASIN WASH  
SEC. 8, T37S-22E  
SAN JUAN COUNTY, UTAH

TABLE OF CONTENTS

1. SUMMARY OF DAILY ACTIVITY	1
2. BIT RECORD	2
3. DEVIATION RECORD SHEET	3
4. DST AND SHOW SHEET	4-5
5. FORMATION TOPS	6

(1) COPY, FINAL MUD LOG ( 5"=100')

(1) COPY, FINAL MUD LOG (2.5"=100')

DRILLING CONTRACTOR:	COLEMAN RIG #3 FARMINGTON, NEW MEXICO
DRILLING FOREMAN:	MR. JOHN LOWRY
PUSHER:	MR. GLEN STORIE MR. JOHN RICHARDSON
GEO TECHNOLOGISTS:	MS. JAN A. JOHNSON MR. TERRY DAOUST INTERMOUNTAIN GEO-TECH, INC. DELTA, CO 81416
DRILLING FLUIDS:	MR. JOHN HUNTER HUNTER MUD & CHEMICAL FARMINGTON, NEW MEXICO
DRILL STEM TESTS:	MR. DAN AULT MR. GENE ROBERTS HALLIBURTON FARMINGTON, NEW MEXICO
WIRE LINE LOGS:	MR. DAVE MAURER SCHLUMBERGER FARMINGTON, NEW MEXICO
GEOLOGIST:	MR. RIC KOPP WINTERSHALL OIL & GAS CORP. DENVER, CO

WINTERSHALL OIL & GAS CORP.  
 8-13 BRUSHY BASIN WASH  
 SEC. 8, T37S-22E  
 SAN JUAN COUNTY, UTAH

SUMMARY OF DAILY ACTIVITY

<u>DATE</u>	<u>ACTIVITY</u>	<u>MIDNITE DEPTH</u>	<u>24 HOUR FOOTAGE</u>
1-28-85	IGT UNIT #1 ON LOCATION RIGGED UP, LOGGING AT 4470'	--	--
1-29-85	TRIP FOR BIT #6 - DRLG, SURV	4470'	681'
1-30-85	DRLG, SURV	5151'	573'
1-31-85	DRLG - TRIP FOR BIT #7	5724'	356'
2-01-85	TIH - DRGL - CIRC FOR DST #1, SURV	6080'	246'
2-02-85	TOH - DST #1 - TIH, DRLG, SURV	6326'	71'
2-03-85	DRLG - TOH - DST #2	6397'	35'
2-04-85	TIH - DRLG - "E" LOGS, SURV	6432'	76'
2-05-85	"E" LOGS, IGT UNIT #1 RELEASED	6508'	--



WINTERSHALL OIL & GAS CORP.  
 8-13 BRUSHY BASIN WASH  
 SEC. 8, T37S-22E  
 SAN JUAN COUNTY, UTAH

BIT RECORD

BIT	MAKE	SIZE	TYPE	DEPTH OUT	FOOTAGE USED	HOURS
1	REED	12 $\frac{1}{4}$	FP53	90'	90'	3 $\frac{1}{2}$
2	STC	17 $\frac{1}{4}$	DT	90'	90'	1 $\frac{1}{2}$
3	REED	12 $\frac{1}{4}$	FP53	1568'	1478'	23
4	STC	12 $\frac{1}{4}$	F-3	2410'	842'	10 $\frac{1}{2}$
5	STC	7 7/8	F-27	4468'	2058'	43
6	VAREL	7 7/8	V537	6084'	1616'	64
7	VAREL	7 7/8	V537	6508'	424'	27

WINTERSHALL OIL & GAS CORP.  
 8-13 BRUSHY BASIN WASH  
 SEC. 8, T37S-22E  
 SAN JUAN COUNTY, UTAH

DEVIATION SHEET FOR WELL. . . .

DEPTH	DEVIATION (DEV)
90'	$\frac{3}{4}^{\circ}$
230'	$\frac{1}{4}^{\circ}$
503'	$\frac{3}{4}^{\circ}$
1011'	$\frac{3}{4}^{\circ}$
1568'	1 $^{\circ}$
2020'	$\frac{3}{4}^{\circ}$
2410'	1 $^{\circ}$
2920'	$\frac{1}{4}^{\circ}$
3416'	1 $^{\circ}$
3910'	$\frac{3}{4}^{\circ}$
4430'	$\frac{3}{4}^{\circ}$
4928'	$\frac{1}{2}^{\circ}$
5423'	$\frac{3}{4}^{\circ}$
6084'	1 $\frac{1}{4}^{\circ}$
6327'	$\frac{3}{4}^{\circ}$
6508'	$\frac{3}{4}^{\circ}$

(IGT)  
DST & SHOW SHEET

SHOW # 1

FROM 6312 ' TO 6322 '

DATE 2/01/85

COMPANY WINTERSHALL OIL & GAS CORP.  
WELL 8-13 Brushy Basin Wash  
FIELD Wildcat

	BEFORE SHOW	DURING SHOW	AFTER SHOW
DRILLING RATE	5MIN./Ft.	2 1/2 MIN./FT.	5MIN./Ft.
TOTAL GAS UNITS	5	30	4-5
METHANE %	.3	1.1	.3
ETHANE %	TR	.6	TR
PROFANE %	TR	.1	TR
BUTANE (ISO) %	-	-	-
BUTANE (NOR) %	-	-	-
PENTANE %	-	-	-

SAMPLE LITHOLOGY LS, WH CPM GYBRN LT-MGY CRPYLN FOS DOL SLTY TT FRM HD

SAMPLE FLOR AND CUT TR DEILL YELLOW PINPOINT FLOR NSOC

DST # <u>1</u>	FROM <u>6296</u> ' TO <u>6326</u> '	DATE <u>2/02/85</u>
	MINUTES	TOP CHART . BOTTOM CHART
INITIAL HYDROSTATIC		3020 3030
INITIAL OPEN	15	14 27-27
INITIAL SHUT-IN	30	14 40
SECOND OPEN	60	14 27-27
SECOND SHUT-IN	60	14 40
FINAL HYDROSTATIC		3020 3030
1ST FLOW	V WEAK BLO-TR BUBBLES, NO PRESSURE	
2ND FLOW	0 BLOW, NO PRESSURE	
REMARKS	BHT <sup>0</sup> 128 <sup>0</sup> F	
DRILL PIPE RECOVERY	10' Mud	
SAMPLE CHAMBER RECOVERY	500 CC Mud, No Pressure	
DRILL PIPE- TOP- R/W=	at <sup>0</sup> F,	MIDDLE-R/W= at <sup>0</sup> F,
DRILL PIPE- BOTTOM-R/W=	at <sup>0</sup> F,	SAMPLE CHMR.- R/W= at <sup>0</sup> F,
PIT MUD-R/W=	at <sup>0</sup> F	

GEO-TECH JAN JOHNSON

(IGT)  
DST & SHOW SHEET

SHOW # 2 FROM 6416 ' TO 6432 ' DATE 2/03/85

COMPANY WINTERSHALL OIL & GAS CORP.  
WELL 8-13 Brushy Basin Wash  
FIELD Wildcat

	BEFORE SHOW	DURING SHOW	AFTER SHOW
DRILLING RATE	3 1/2 MIN. / Ft.	1 MIN. / Ft.	
TOTAL GAS UNITS	5	800	
METHANE %	TR	30%	
ETHANE %	TR	6.5%	
PROPANE %	-	4.4%	
BUTANE (ISO) %	-	TR	
BUTANE (NOR) %	-	TR	
PENTANE %	-	-	

SAMPLE LITHOLOGY DOL., MG., BRNGY, MICXIN-EXL, VRTHY, SLTY, TP, FRM-HD

SAMPLE FLOR AND CUT G. RL. CN FLOR VSL. MKY CUT N. STN

DST # 2 FROM 6411 ' TO 6432 ' DATE 2/03/85

	MINUTES	TOP CHART	BOTTOM CHART
INITIAL HYDROSTATIC		3097.9	3129.1
INITIAL OPEN	15	26.9-40.3	27.1-40.6
INITIAL SHUT-IN	30	1936.7	1952.9
SECOND OPEN	60	26.9-93.9	40.6-108.2
SECOND SHUT-IN	120	2423.0	2439.2
FINAL HYDROSTATIC		3097.9	3129.1

1ST FLOW MOD BLO 4oz built to 4lbs in 16 MIN. no gts

2ND FLOW STRONG BLO 4LBS BUILT TO 30LBS IN 45 MIN. GTS ONLY" CHOKE, 8" FLARE, 26lbs in next 15 min.

REMARKS BHT 130 F

DRILL PIPE RECOVERY ALL GAS

SAMPLE CHAMBER RECOVERY 75psi-700cc gas foamed mud-1700cc gas

DRILL PIPE- TOP- R/W= at °F, MIDDLE-R/W= at °F,

DRILL PIPE- BOTTOM-R/W= at °F, SAMPLE CHMER- R/W= at °F,

PIT MD-R/W= at °F

GEO-TECH TERRY DAoust

WINTERSHALL OIL & GAS CORP.  
8-13 BRUSHY BASIN WASH  
SEC. 8, T37S-22E  
SAN JUAN COUNTY, UTAH

FORMATION TOPS

FORMATION	SAMPLE TOP DEPTH	E-LOGS DEPTH	SUB-SEA DEPTH
HONAKER TRAIL	5246'	5256'	+569'
UPPER ISMAY	6124'	6134'	-309'
HOVENWEEP	6220'	6198'	-373
LOWER ISMAY	6272'	6252'	-427'
GOTHIC	6322'	6302'	-477'
DESERT CREEK	6336'	6314'	-489'
CHIMNEY ROCK	6450'	6438'	-613'
AKAH	6476'	6466'	-641'

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYRECEIVED  
FEB 15 1985DIVISION OF OIL  
& GAS

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☒ gas well ☐ other ☐
2. NAME OF OPERATOR  
Wintershall Oil and Gas Corporation
3. ADDRESS OF OPERATOR  
5675 DTC Blvd, Englewood, CO 80111
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 1420' FSL - 1230' FWL  
AT TOP PROD. INTERVAL: Same  
AT TOTAL DEPTH: Same
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

## REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF ☐  
FRACTURE TREAT ☐  
SHOOT OR ACIDIZE ☐  
REPAIR WELL ☐  
PULL OR ALTER CASING ☐  
MULTIPLE COMPLETE ☐  
CHANGE ZONES ☐  
ABANDON\* ☐

## SUBSEQUENT REPORT OF:

(other) Well status ☒

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Ran 57 jts, 9-5/8", 36#, J-55 surface casing and set at 2404'. Cemented with 635 sxs Lite-Wt. cement w/1/4# per sx Celloflake and 2% CaCl. Tailed in with 300 sxs Class B w/2% CaCl and 1/4# per sx Celloflake. Circulated 30 bbls cement to surface.

Current operation 1/31/85: drilling ahead at 5850'.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Richard Shuster TITLE Sr. Reservoir Engr DATE 2/11/85

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

CC: Utah OGMDL ✓

RECEIVED

UNITED STATES  
DEPARTMENT OF THE INTERIOR FEB 15 1985  
GEOLOGICAL SURVEYDIVISION OF OIL  
SUNDRY NOTICES AND REPORTS ON WELLS GAS & MINING

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☐ gas ☐ other ☒ Dry hole  
2. NAME OF OPERATOR  
Wintershall Oil and Gas Corporation  
3. ADDRESS OF OPERATOR  
5675 DTC Blvd., Englewood, CO 80111  
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 1420' FSL - 1230' FWL  
AT TOP PROD. INTERVAL: Same  
AT TOTAL DEPTH: Same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(other)		

5. LEASE  
U-50412  
6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
None  
7. UNIT AGREEMENT NAME  
None  
8. FARM OR LEASE NAME  
Federal  
9. WELL NO.  
#8-13  
10. FIELD OR WILDCAT NAME  
Wildcat  
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 8, T37S-R22E  
12. COUNTY OR PARISH  
San Juan  
13. STATE  
Utah  
14. API NO.  
43-037-31105  
15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5811'GR; 5825'KB

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Pursuant to telephone notification, plugged well on 2/7/85 as follows:

Plug #1	6509-6152'	w/106 sxs Hi-Early w/2% CaCl
Plug #2	2500-2300'	w/125 sxs Class B w/3% CaCl
Plug #3	@ surface	w/50 sxs Class B w/2% CaCl

Well P & A'd.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Richard Shuster TITLE Sr. Reservoir Engr. DATE 2/11/85

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

cc: Utah OGMD,

ACCEPTED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

\*See Instructions on Reverse Side

DATE: 2/20/85  
BY: John R. B...



TICKET NO. 71972000  
07-FEB-85  
FARMINGTON

**RECEIVED**

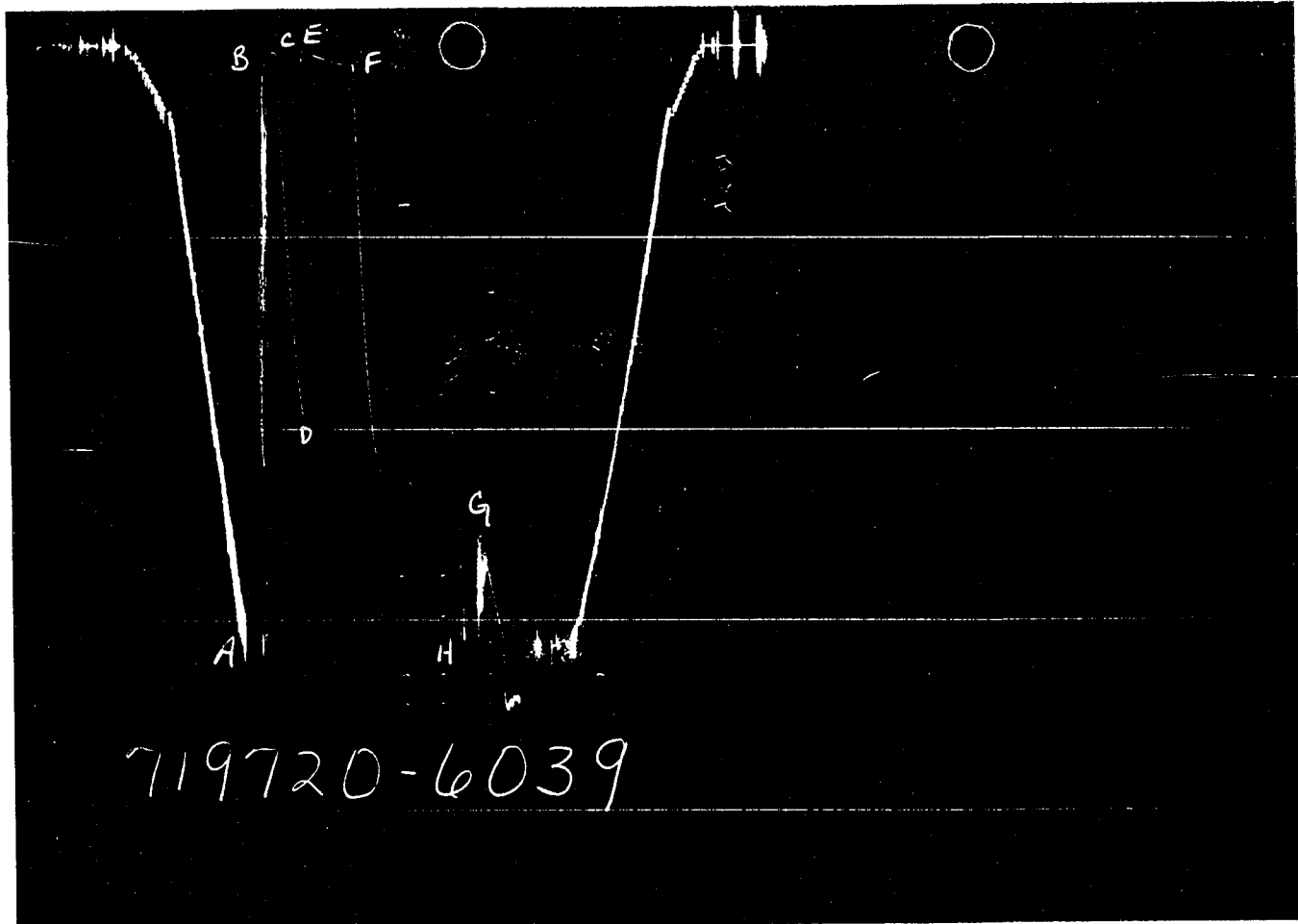
**FEB 15 1985**

**DIVISION OF OIL  
GAS & MINING**

# FORMATION TESTING SERVICE REPORT

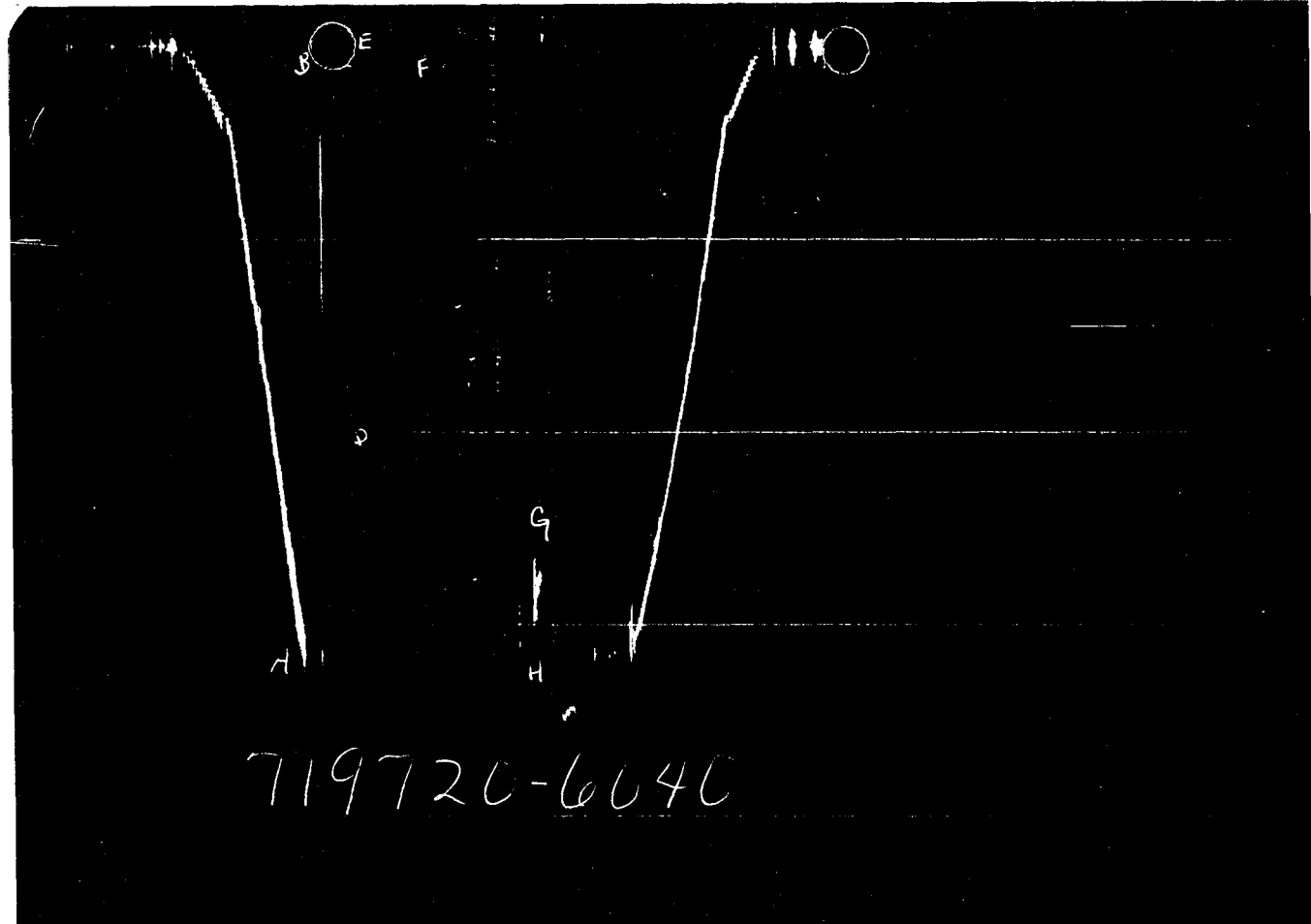
FEDERAL		8-13		2		6411.1 - 6432.1		WINTERSHALL OIL AND GAS CORPORATION	
LEASE NAME		WELL NO.		TEST NO.		TESTED INTERVAL		LEASE OWNER/COMPANY NAME	
LEGAL LOCATION		8-37S-22E		FIELD AREA		WILDCAT		COUNTY	
SEC. - TWP. - RNG.								SAN JUAN	
								STATE	
								UTAH	
								BG	





GAUGE NO: 6039 DEPTH: 6390.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3098	3098.4			
B	INITIAL FIRST FLOW	27	27.7			
C	FINAL FIRST FLOW	40	35.9	16.0	15.1	F
C	INITIAL FIRST CLOSED-IN	40	35.9			
D	FINAL FIRST CLOSED-IN	1937	1936.8	30.0	28.8	C
E	INITIAL SECOND FLOW	27	28.4			
F	FINAL SECOND FLOW	94	98.8	60.0	61.2	F
F	INITIAL SECOND CLOSED-IN	94	98.8			
G	FINAL SECOND CLOSED-IN	2423	2432.9	120.0	118.8	C
H	FINAL HYDROSTATIC	3098	3079.1			



GAUGE NO: 6040 DEPTH: 6429.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3129	3132.7			
B	INITIAL FIRST FLOW	27	48.6			
C	FINAL FIRST FLOW	41	56.0	16.0	15.1	F
C	INITIAL FIRST CLOSED-IN	41	56.0			
D	FINAL FIRST CLOSED-IN	1953	1955.9	30.0	28.8	C
E	INITIAL SECOND FLOW	41	46.3			
F	FINAL SECOND FLOW	108	114.7	60.0	61.2	F
F	INITIAL SECOND CLOSED-IN	108	114.7			
G	FINAL SECOND CLOSED-IN	2439	2450.8	120.0	118.8	C
H	FINAL HYDROSTATIC	3129	3108.0			

**EQUIPMENT & HOLE DATA**

FORMATION TESTED: DESERT CREEK

NET PAY (ft): 16.0

GROSS TESTED FOOTAGE: 21.0

ALL DEPTHS MEASURED FROM: KB

CASING PERFS. (ft): \_\_\_\_\_

HOLE OR CASING SIZE (in): 7.875

ELEVATION (ft): 5825

TOTAL DEPTH (ft): 6432.0

PACKER DEPTH(S) (ft): 6405, 6411

FINAL SURFACE CHOKE (in): 0.250

BOTTOM HOLE CHOKE (in): 0.750

MUD WEIGHT (lb/gal): 9.30

MUD VISCOSITY (sec): \_\_\_\_\_

ESTIMATED HOLE TEMP. (°F): 180

ACTUAL HOLE TEMP. (°F): 130 @ 6428.0 ft

TICKET NUMBER: 71972000DATE: 2-3-85 TEST NO: 2TYPE DST: OPEN HOLEHALLIBURTON CAMP:  
FARMINGTONTESTER: ROBERTSWITNESS: LOWRYDRILLING CONTRACTOR:  
COLEMAN #3**FLUID PROPERTIES FOR  
RECOVERED MUD & WATER**

SOURCE	RESISTIVITY	CHLORIDES
<u>PIT SAMPLE</u>	<u>5.980 @ 68 °F</u>	<u>1300 ppm</u>
_____	_____ °F	_____ ppm
_____	_____ °F	_____ ppm
_____	_____ °F	_____ ppm
_____	_____ °F	_____ ppm
_____	_____ °F	_____ ppm

**SAMPLER DATA**

Psig AT SURFACE: 75

cu.ft. OF GAS: 0.40

cc OF OIL: 0

cc OF WATER: 0

cc OF MUD: 700

TOTAL LIQUID cc: 700

**HYDROCARBON PROPERTIES**

OIL GRAVITY (°API): \_\_\_\_\_ @ \_\_\_\_\_ °F

GAS/OIL RATIO (cu.ft. per bbl): \_\_\_\_\_

GAS GRAVITY: \_\_\_\_\_

**CUSHION DATA**

TYPE	AMOUNT	WEIGHT
_____	_____	_____
_____	_____	_____

**RECOVERED:**

REVERSED OUT.....GAS TO SURFACE.

MEASURED FROM  
TESTER VALVE**REMARKS:**

REPORTED ELEVATION MEASURED AT GROUND LEVEL WAS 5811 FEET.

NET PAY WAS FROM 6416' TO 6432'.



TICKET NO: 71972000

CLOCK NO: 14128 HOUR: 24


  
**HALLIBURTON**
  
 SERVICES

GAUGE NO: 6039

DEPTH: 6390.0

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW					
B 1	0.0	27.7			
2	1.0	28.6	0.9		
3	2.0	28.6	0.0		
4	3.0	28.6	0.0		
5	4.0	28.6	0.0		
6	5.0	28.6	0.0		
7	6.0	28.6	0.0		
8	7.0	29.2	0.5		
9	8.0	30.0	0.8		
10	9.0	30.7	0.7		
11	10.0	32.0	1.3		
12	11.0	33.6	1.6		
13	12.0	34.4	0.8		
14	13.0	35.7	1.3		
15	14.0	36.3	0.5		
C 16	15.1	35.9	-0.4		
FIRST CLOSED-IN					
C 1	0.0	35.9			
2	1.0	132.5	96.7	0.9	1.208
3	2.0	222.8	186.9	1.8	0.933
4	3.0	313.5	277.6	2.5	0.782
5	4.0	391.7	355.8	3.2	0.677
6	5.0	486.7	450.8	3.8	0.603
7	6.0	570.9	535.0	4.3	0.549
8	7.0	672.0	636.1	4.8	0.500
9	8.0	769.8	734.0	5.2	0.462
10	9.0	870.4	834.5	5.7	0.427
11	10.0	955.8	920.0	6.0	0.399
12	12.0	1107.2	1071.3	6.7	0.354
13	14.0	1247.8	1211.9	7.3	0.318
14	16.0	1374.6	1338.7	7.8	0.289
15	18.0	1492.0	1456.2	8.2	0.264
16	20.0	1589.9	1554.0	8.6	0.244
17	22.0	1682.2	1646.3	9.0	0.227
18	24.0	1768.6	1732.7	9.3	0.212
19	26.0	1845.0	1809.1	9.6	0.199
D 20	28.8	1936.8	1900.9	9.9	0.183
SECOND FLOW					
E 1	0.0	28.4			
2	4.0	28.9	0.5		
3	8.0	36.4	7.5		
4	12.0	41.2	4.8		
5	16.0	48.5	7.2		
6	20.0	55.2	6.7		
7	24.0	61.9	6.7		
8	28.0	67.8	5.9		

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND FLOW - CONTINUED					
9	32.0	73.0	5.2		
10	36.0	79.3	6.3		
11	40.0	84.9	5.6		
12	44.0	91.1	6.2		
13	48.0	94.7	3.6		
14	52.0	95.7	0.9		
15	56.0	96.9	1.2		
16	60.0	98.1	1.2		
F 17	61.2	98.8	0.7		
SECOND CLOSED-IN					
F 1	0.0	98.8			
2	1.0	335.1	236.4	1.0	1.872
3	2.0	500.3	401.5	2.0	1.590
4	3.0	688.3	589.5	2.9	1.419
5	4.0	856.1	757.4	3.8	1.303
6	5.0	1019.5	920.8	4.7	1.213
7	6.0	1159.7	1061.0	5.6	1.136
8	7.0	1265.4	1166.7	6.4	1.074
9	8.0	1362.7	1264.0	7.2	1.024
10	9.0	1474.0	1375.3	8.1	0.976
11	10.0	1563.2	1464.4	8.9	0.935
12	12.0	1715.8	1617.0	10.3	0.868
13	14.0	1849.6	1750.9	11.8	0.809
14	16.0	1952.4	1853.7	13.2	0.760
15	18.0	2035.6	1936.8	14.6	0.719
16	20.0	2097.5	1998.7	15.8	0.683
17	22.0	2153.7	2054.9	17.1	0.649
18	24.0	2196.9	2098.2	18.3	0.621
19	26.0	2231.1	2132.4	19.4	0.595
20	28.0	2259.1	2160.4	20.5	0.571
21	30.0	2283.2	2184.4	21.6	0.549
22	35.0	2326.1	2227.4	24.0	0.502
23	40.0	2353.8	2255.1	26.2	0.464
24	45.0	2372.6	2273.9	28.3	0.430
25	50.0	2385.1	2286.3	30.2	0.402
26	55.0	2395.1	2296.3	32.0	0.378
27	60.0	2401.8	2303.1	33.6	0.356
28	70.0	2412.6	2313.9	36.5	0.320
29	80.0	2420.1	2321.3	39.0	0.291
30	90.0	2424.8	2326.0	41.3	0.267
31	100.0	2427.8	2329.0	43.3	0.246
32	110.0	2431.3	2332.5	45.1	0.229
G 33	118.8	2432.9	2334.2	46.5	0.215

REMARKS:

TICKET NO: 71972000

CLOCK NO: 13741 HOUR: 24


  
**HALLIBURTON**
  
 SERVICES



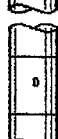











GAUGE NO: 6040

DEPTH: 6429.0

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW					
B 1	0.0	48.6			
2	1.0	49.1	0.5		
3	2.0	49.1	0.0		
4	3.0	49.1	0.0		
5	4.0	49.1	0.0		
6	5.0	49.1	0.0		
7	6.0	49.1	0.0		
8	7.0	50.2	1.1		
9	8.0	51.1	0.9		
10	9.0	51.8	0.7		
11	10.0	52.5	0.7		
12	11.0	53.3	0.8		
13	12.0	54.4	1.1		
14	13.0	55.0	0.7		
15	14.0	55.3	0.3		
C 16	15.1	56.0	0.7		
FIRST CLOSED-IN					
C 1	0.0	56.0			
2	1.0	141.4	85.4	1.0	1.193
3	2.0	223.9	167.9	1.8	0.924
4	3.0	314.7	258.7	2.5	0.779
5	4.0	396.3	340.3	3.2	0.677
6	5.0	484.0	428.0	3.7	0.607
7	6.0	579.1	523.1	4.3	0.548
8	7.0	675.3	619.3	4.8	0.501
9	8.0	765.0	709.0	5.2	0.462
10	9.0	851.0	795.0	5.6	0.428
11	10.0	935.4	879.4	6.0	0.400
12	12.0	1091.2	1035.2	6.7	0.353
13	14.0	1234.2	1178.2	7.3	0.318
14	16.0	1367.8	1311.8	7.8	0.288
15	18.0	1488.4	1432.4	8.2	0.265
16	20.0	1593.6	1537.6	8.6	0.245
17	22.0	1691.8	1635.8	9.0	0.227
18	24.0	1776.2	1720.2	9.3	0.212
19	26.0	1864.8	1808.8	9.6	0.199
D 20	28.8	1955.9	1899.9	9.9	0.183
SECOND FLOW					
E 1	0.0	46.3			
2	4.0	48.7	2.4		
3	8.0	54.4	5.7		
4	12.0	60.6	6.2		
5	16.0	67.2	6.6		
6	20.0	73.3	6.1		
7	24.0	79.4	6.1		
8	28.0	85.5	6.1		

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND FLOW - CONTINUED					
9	32.0	90.5	5.0		
10	36.0	96.3	5.8		
11	40.0	101.7	5.4		
12	44.0	107.6	5.9		
13	48.0	110.8	3.1		
14	52.0	111.7	0.9		
15	56.0	113.1	1.4		
16	60.0	113.6	0.5		
F 17	61.2	114.7	1.1		
SECOND CLOSED-IN					
F 1	0.0	114.7			
2	1.0	272.1	157.5	1.0	1.886
3	2.0	451.8	337.1	2.0	1.590
4	3.0	651.8	537.1	2.9	1.420
5	4.0	785.7	671.0	3.8	1.300
6	5.0	939.5	824.8	4.7	1.209
7	6.0	1059.8	945.1	5.6	1.137
8	7.0	1175.6	1060.9	6.4	1.073
9	8.0	1293.0	1178.3	7.3	1.022
10	9.0	1384.0	1269.3	8.1	0.976
11	10.0	1479.0	1364.3	8.8	0.937
12	12.0	1639.4	1524.7	10.4	0.866
13	14.0	1762.6	1647.9	11.8	0.811
14	16.0	1882.6	1767.9	13.2	0.761
15	18.0	1980.4	1865.7	14.6	0.719
16	20.0	2058.9	1942.2	15.9	0.682
17	22.0	2125.3	2010.6	17.1	0.651
18	24.0	2180.5	2065.9	18.3	0.621
19	26.0	2223.1	2108.4	19.4	0.595
20	28.0	2257.4	2142.8	20.5	0.571
21	30.0	2285.8	2171.1	21.6	0.549
22	35.0	2335.8	2221.1	24.0	0.503
23	40.0	2366.9	2252.2	26.3	0.463
24	45.0	2387.2	2272.5	28.3	0.430
25	50.0	2401.8	2287.1	30.2	0.402
26	55.0	2412.9	2298.2	32.0	0.378
27	60.0	2420.8	2306.2	33.6	0.356
28	70.0	2431.8	2317.1	36.5	0.320
29	80.0	2438.7	2324.0	39.1	0.291
30	90.0	2443.3	2328.6	41.3	0.267
31	100.0	2446.7	2332.0	43.3	0.246
32	110.0	2449.4	2334.7	45.1	0.229
G 33	118.8	2450.8	2336.2	46.5	0.215

REMARKS:

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	5502.0	
3		DRILL COLLARS.....	6.250	2.250	813.0	
50		IMPACT REVERSING SUB.....	6.000	3.000	1.0	6315.0
3		DRILL COLLARS.....	6.250	2.250	60.0	
5		CROSSOVER.....	6.000	3.000	1.0	
13		DUAL CIP SAMPLER.....	5.000	0.750	7.0	
60		HYDROSPRING TESTER.....	5.000	0.750	5.0	6388.0
80		AP RUNNING CASE.....	5.000	2.250	4.0	6390.0
15		JAR.....	5.000	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	3.0	
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	6405.0
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	6411.0
20		FLUSH JOINT ANCHOR.....	5.750	2.500	15.0	
81		BLANKED-OFF RUNNING CASE.....	5.750		4.0	6429.0
TOTAL DEPTH					6432.0	

EQUIPMENT DATA

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
4241 State Office Building  
Salt Lake City, UT 84114

RECEIVED

FEB 15 1985

DIVISION OF OIL  
GAS & MINING\*REPORT OF WATER ENCOUNTERED DURING DRILLING\*

Well Name &amp; Number Federal #8-13

Operator Wintershall Oil and Gas Corp. Address 5675 DTC Blvd., Ste. 200  
Englewood, CO 80111Contractor Coleman Drilling Co. Address Drawer 3337  
Farmington, NM 87499

Location NW 1/4 SW 1/4 Sec. 8 T. 37S R. 22E County San Juan

Water Sands

	<u>Depth</u>		<u>Volume</u>	<u>Quality</u>
	From	To	Flow Rate or Head	Fresh or Salty
1.	NO WATER ENCOUNTERED DURING DRILLING.			
2.				
3.				
4.				
5.				

(Continue on reverse side if necessary)

Formation Tops Cutler/DeChelley 3364'  
Honaker Trail 5200'  
Upper Ismay 6134'  
Remarks Lower Ismay 6252'  
Desert Creek 6314'

NOTE: (a) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure.

(b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other  
instructions on  
reverse side)Form approved.  
Budget Bureau No. 42-R355.5.

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ Other \_\_\_\_\_  
b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESRV. ☐ Other P&A'd

2. NAME OF OPERATOR  
Wintershall Oil and Gas Corporation

3. ADDRESS OF OPERATOR  
5675 DTC Blvd., Ste. 200, Englewood, CO

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface 1420' FSL - 1230' FWL

At top prod. interval reported below Same

At total depth Same

FEB 25 1985

DIVISION OF OIL

14. PERMIT NO. GAS &amp; MINING

43-037-31105

11/20/84

15. DATE SPUDDED 1/23/85 16. DATE T.D. REACHED 2/5/85 17. DATE COMPL. ~~Ready to prod.~~ P&A'd 2/6/85 18. ELEVATIONS (DF, REB, RT, GR, ETC.)\* 5811'GR; 5825'KB 19. ELEV. CASINGHEAD --

20. TOTAL DEPTH, MD & TVD 6509' 21. PLUG, BACK T.D., MD & TVD -- 22. IF MULTIPLE COMPL., HOW MANY\* None 23. INTERVALS DRILLED BY -- ROTARY TOOLS Yes CABLE TOOLS No

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
None

25. WAS DIRECTIONAL SURVEY MADE  
No

26. TYPE ELECTRIC AND OTHER LOGS RUN

BHC-Sonic; DIL/SFL; CNL/FDC

27. WAS WELL CORED  
No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	54.5#	90'	17-1/2"	110 SXS	None
9-5/8"	36#	2404'	12-1/4"	935 SXS	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
		NONE				NONE	

31. PERFORATION RECORD (Interval, size and number)

NONE

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
	NONE

33.\* PRODUCTION

DATE FIRST PRODUCTION \_\_\_\_\_ PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) \_\_\_\_\_ WELL STATUS (Producing or shut-in) P&A'd

DATE OF TEST \_\_\_\_\_ HOURS TESTED \_\_\_\_\_ CHOKE SIZE \_\_\_\_\_ PROD'N. FOR TEST PERIOD \_\_\_\_\_ OIL—BBL. \_\_\_\_\_ GAS—MCF. \_\_\_\_\_ WATER—BBL. \_\_\_\_\_ GAS-OIL RATIO \_\_\_\_\_

FLOW. TUBING PRESS. \_\_\_\_\_ CASING PRESSURE \_\_\_\_\_ CALCULATED 24-HOUR RATE \_\_\_\_\_ OIL—BBL. \_\_\_\_\_ GAS—MCF. \_\_\_\_\_ WATER—BBL. \_\_\_\_\_ OIL GRAVITY-API (CORR.) \_\_\_\_\_

\*34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS Dowell's cementing report is attached.

Logs and DTS will be sent directly to BLM and State by service companies.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

*Alan P. Howay*

TITLE

Operations Manager

DATE

cc: Utah OGMD

\*(See Instructions and Spaces for Additional Data on Reverse Side)

# INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently-available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29: "Sacks Cement":** Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

## 37. SUMMARY OF POROUS ZONES:

SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF: CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
DST #1, 6286-6327', Lower Ismay			
DST #2, 6432-6411', Desert Creek			
(Sent directly by Halliburton)			

## 38.

### GEOLOGIC MARKERS

NAME	MEAS. DEPTH	TOP	TRUE VERT. DEPTH
Cutler	3364'		
Honaker Trail	5200'		
Upper Ismay	6134'		
Lower Ismay	6252'		
Desert Creek	6314'		